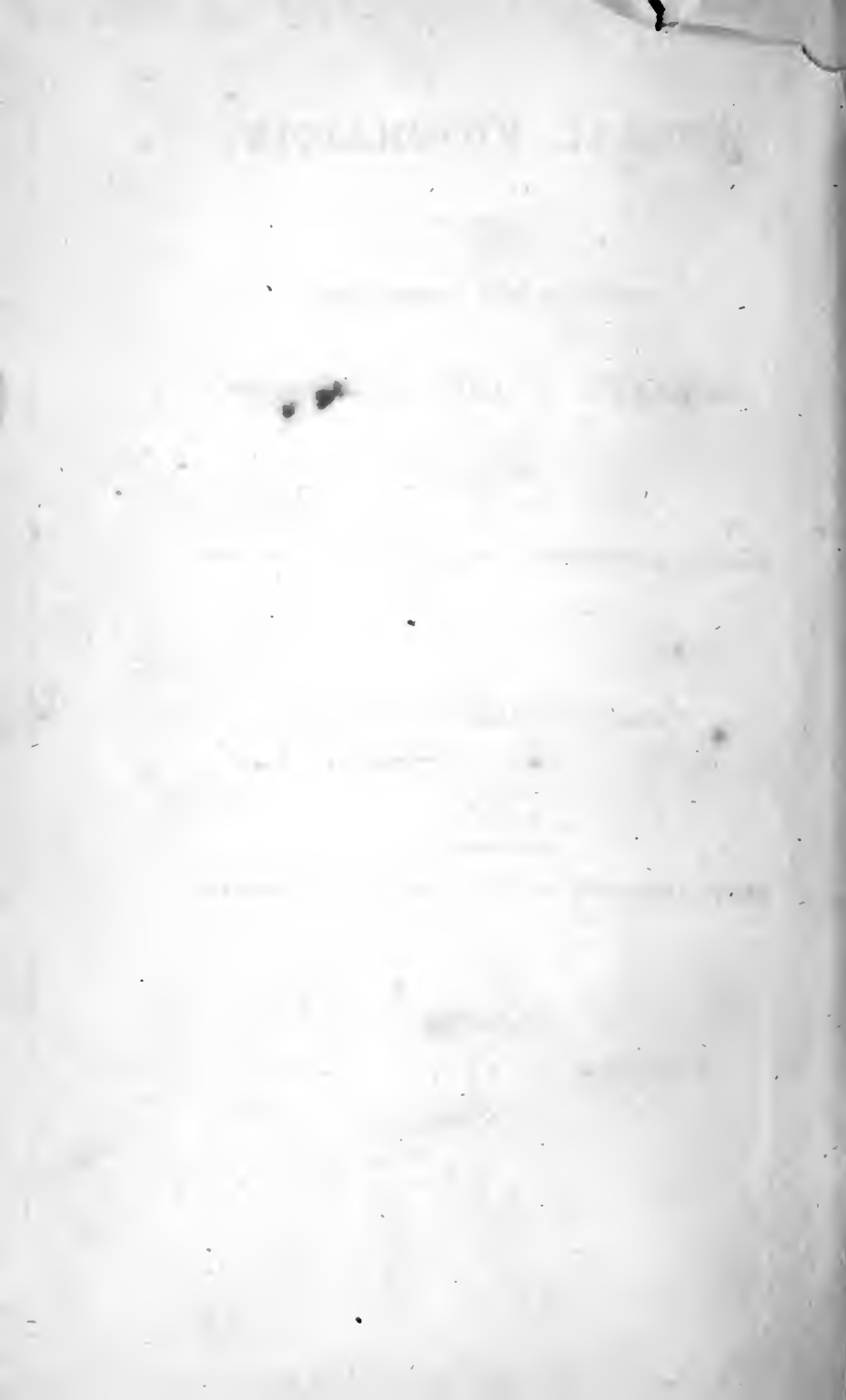


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J. C. A. Spaford

Nov. 1853.



ANIMAL BIOGRAPHY;

CONSISTING OF

SINGULAR AND INTERESTING

NARRATIVES AND ANECDOTES,

ILLUSTRATIVE OF THE

HABITS, DISPOSITIONS, INSTINCT, AND SAGACITY

OF THE

VARIOUS TRIBES OF ANIMALS.

INTENDED AS A

SUPPLEMENT TO BUFFON'S NATURAL HISTORY.

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ANIMAL KINGDOM

MANUAL OF

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OF THE

1881

ANIMAL BIOGRAPHY.

Apes in general.

THESE animals, in their outward appearance and internal organization, bear a close resemblance to human beings; and on this account, and from their natural playfulness, gesticulations, and grimace, have always been objects of particular attention. They exceed all other animals in agility, and the highest attainments of the most celebrated professors of gymnastics are only very indifferent imitations of the ever varying movements of these active and amusing animals. They delight in breaking, tearing, and running away with whatever attracts their attention. If offensively treated, they express rage and resentment by chattering with their teeth. Many kinds of them, when harshly treated and beat, will utter dreadful cries and shrieks of distress; others will groan, and sigh, and weep piteously. Yet, even on these occasions, their strange and whimsical attitudes and grotesque appearances excite laughter, even whilst we sympathize in their distress. It is generally believed, that as in cunning and artifice, so in mental capacity they are superior to all other irrational animals; yet instances are not wanting to prove, that many other quadrupeds are greatly superior in sagacity. Their limbs are well compacted and remarkably strong.

This extensive tribe of animals is usually arranged under the three denominations of apes, baboons, and monkeys.

Monkeys are more disposed to associate than either apes or baboons; and it is asserted by various writers, that they in some instances form a sort of republic, in which a considerable degree of subordination is preserved; that they always travel in regular order, conducted by chiefs, the strongest and most experienced animals of their troop; some of the same character also command in the rear, who,

by the sound of their voices, produce silence and peaceful demeanour, when some of the troop require to be admonished. The native negroes, in those countries where troops of monkeys are found, believe these animals to be a vagabond race of men, who are averse to labour, either for the cultivation of the earth or to build themselves huts for their residence. Even burthened with their young clinging to their backs, the dexterity of monkeys is so great, that they will bound from one tree to another, securing their hold among the branches without fear or hazard. When a gun is levelled at them, they cry out and grin in the most horrible manner. If one be shot and fall to the ground, all the rest howl most dismally; and if one be wounded only, his companions take him up and run away with him far beyond the reach of his pursuers. Apes and monkeys, in many parts of India, are worshipped with sacred ceremonies, and magnificent temples raised to honour and dignify this species of worship. They are exceedingly numerous in the countries they inhabit, and frequently come in troops into the cities, and enter the houses with perfect freedom. In the city of Calicut the inhabitants have all their windows latticed, as the only means they can adopt to keep these unceremonious visitors out of their houses. Three hospitals are established at Amadabad, the capital of Guzerat, for lame and sick monkeys and other animals. Here also healthy monkeys are fed and cherished, as long as they choose this for their place of residence. In the streets of this city the monkeys of the neighbourhood spontaneously assemble twice every week; when they mount the houses, on the flat roofs of which they repose during the heat of the day. Rice, millet, or fruit is left on the terrace on those days by the inhabitants; but if, from forgetfulness, or any other cause, this be neglected, the enraged animals break the tiles, and commit various outrages.

It is related in Ward's View of Hindus, that about twenty years ago, Ishwara Candra, the Rajah of Nudeeya, spent the enormous sum of 100,000 rupees (£12,500) in marrying two monkeys; when all the parade common to Hindoo marriages was exhibited. In the procession there were seen elephants, camels, and horses, all richly caparisoned; with lamps and flambeaux. The male monkey was fastened in a palanquin splendidly ornamented; he had a crown upon his head, and men standing by his side to fan him: then followed numerous carriages, with

dancing girls and every kind of Hindoo music. At the ceremony, learned Brahmins were employed in reading the formula from the Shastres : and, at the bridegroom's palace, there was music, dancing, and singing, and every kind of low mirth, during twelve successive days.

If the accounts of travellers may be credited, many of them give us convincing evidence that monkeys are endowed with a portion of rationality.

In the Ukarine, or country of the Cossacks, bordering on Poland, monkeys are found in the plains and woods in vast numbers. These creatures form separate parties, or associations, and on certain days meet in hostile bands, and engage in pitched battles. The opposing armies have their respective chiefs, and officers of several subordinate ranks ; the various combatants appear to obey orders, and proceed with the same regularity that men do on the like occasions. Cardinal Polignac, who was sent ambassador to Poland by Louis XIV., in order to support the interests of the Prince of Conde against Stanilaus, had often opportunities of seeing these animals engage. He tells us, that they gave the word of command for the onset by a sort of cry or inarticulate sound ; that he has seen them march in regular companies, each led by its particular captain. On meeting, both parties were drawn up in battle array, and on the signal given by their chiefs, engaged with a degree of fury that surprised him. If in this instance these imitative animals may be supposed to have copied the worst actions of their exemplar, man, numerous instances are known of their following him in actions, indifferent, and even praise-worthy ; and if evil passions and bad propensities be discovered in the Ukarine monkeys, many of those of other countries have been found to follow a better example. That they possess passions is an indisputable fact, and it will be allowed that passion and feeling are the causes of action in men as well as monkeys. If they be capable of fear, anger, rage—why not also of courage, love, despair, and melancholy ? This will probably be disputed by some ; and those who believe themselves wise in their incredulity will not believe the following account.

A monkey, of admirable sensibility and gentleness of disposition, had been bred and educated in the ship which conveyed the illustrious traveller, Sir Gore Ousley, across the ocean. The benevolence of pug's disposition gained him the love and kind attention of every soul on board ;

and he gloried in being every one's favourite. But no mortal is free from imperfection ; poor pug had his faults. He was clearly convicted of tying a milch-goat to a gun-tackle and milking her into a marine's hat, and regaling himself with the produce of his wickedness, robbed from the breakfast-table of the captain, and his illustrious guest. Several were accused of this heinous offence, and one of the ship boys was on the point of suffering a severe flogging beside the very spot where pug had committed the crime. At this critical moment pug was seen peeping from below, with his beard yet white with the liquid he had recently devoured. The fortunate boy escaped, and pug was with some difficulty caught, and made his confession by chattering and supplication. The punishment decreed was judicious, but severe : the order of the captain was, that pug should be sent to Coventry ; a public declaration at the same time being made, that whoever should encourage the advances of the offender, should forfeit his grog for a week : this mandate was effective. The benevolent and social disposition of pug led him to seek his happiness there, where he had formerly found it, in the smiles and caresses of the whole ship's company, who were his friends. During several successive days he went from birth to birth, fondly soliciting his wonted reception, but in vain ; every face turned away from him. Instead of the soft smile of kindness, he every where met with cold indifference, or harsh resentment, or contemptuous silence. This was too much for him ; he came on deck, sought out a formerly kind and dear companion, and in vain attempted to attract his notice by his usual tricks and artifices ; but finding all his attempts fruitless, he looked at his cold-hearted friend, chattered a few notes of melancholy and despair, elevated his arms above his head, and plunged among the waves, never to rise again.

The following facts may serve to instance the imitative propensity of the race of monkeys ; it gives, however, only a low idea of mental capacity, if we should allow them to possess any.

It is well known that the negroes have a high esteem for palm wine, for the purpose of procuring which they raise a ladder, or moveable scaffolding, to ascend the palm-tree, and leave a proper vessel for the liquid ; a large monkey, peculiar to the country, which is remarkably fond of the wine, carefully observing all their motions, takes the first opportunity of ascending the tree and drinking the wine.

The negroes, when about to descend, never failed to raise a calabash of wine to their mouths, and drink it off; they then draw a large knife, with the back towards them, across their throats, with seeming violence, and leave a sharp two-edged knife beside the calabash. The roguish monkey has all the while been a careful observer of all their motions, which he soon takes an opportunity to imitate, not forgetting to punish himself for the felony he is committing, by drawing the knife across his throat.

Dancing may be reckoned one of the accomplishments for which nature has particularly qualified the monkey to excel; and as this elegant exercise is esteemed the more perfect when the movements are of a difficult performance, it is evidently a higher accomplishment to perform on a slack rope than on a spring floor: this mode of dancing was exhibited in great perfection by four accomplished monkeys, some years ago, to thousands of spectators. They swung, turned, walked, pirouetted, and hand-in-hand danced a hornpipe, and then each a *pas seul*, to the admiration of all present.

These active performers even attempted the graver movements, with complete success.

A foreign marquis of celebrity, having to attend the court of Louis the XVI., took with him his favourite monkey; he was invited, on his arrival, to a great ball, to be given at Versailles, and, anxious to perform his part with credit, he engaged one of the first masters to teach him the newest court mode, and employed himself diligently in practising his lessons against the day appointed. Pug made his observations very attentively, watching all his master's motions, and his powdered instructor playing on his viol; on the close of his lesson, the marquis practised before a large mirror, till he was satisfied with his performances, and then retired: on which pug descended from his observatory, and laying his hands on a viol, which happened to be in the room, he placed himself before the mirror, and proceeded to imitate the dancing of his master, and the fiddling and chattering of the tutor; but strange discordant sounds reaching the ears of the domestics and the marquis, poor pug was disturbed in the very beginning of his performances.

A fine strapping monkey, of a sagacious appearance, was the favourite of a naval hero of some celebrity, who frequently placed him at table among his guests, to create merriment and provoke good humour. At other times he

would clothe him in the uniform of a sea-captain, under which disguise he had the appearance of a complete gentleman. On these occasions he would ape the attitudes and motions of his assumed character with admirable effect; and learned to touch his cocked hat, when the superior officer appeared on deck; imitated the inquiring look of the officer of the watch, often lifting up his paw to his eye to facilitate his examination of the sails and rigging; and affected to stamp and rage, if a rope hung dangling out of its place. On board the same frigate there was another monkey, of a smaller kind, and between the two the strictest agreement and friendship subsisted, being united by a league of co-operation, offensive and defensive. The office of the lesser of these friends, who was named Meike, was to place property, stolen by his taller and more daring companion, in some place of safety, and also to warn him of any approaching danger, when on an expedition. The first considerable exploit of these adventurers was the affair of the golden snuff-box, which, though an absolute felony, yet had this mitigatory circumstance belonging to it, that it was rather removed as a cause of mischief, than taken as plunder. Pug, though a great favourite with the captain, was frequently much incommoded by doses of prince's mixture, injudiciously administered, more for the amusement of the spectators than the ease or benefit of the patient. On mature reflection, the removal of the cause seemed to be the best mode of proceeding for the avoidance of this evil. The two friends consulted together, and the golden snuff-box disappeared. A general search took place, but without effect, and many were unjustly suspected. In the mean time the conduct of the monkeys was more retired than usual, and Meike was observed to be frequently running to peep into his master's chest—his master was a midshipman, and at the time of this occurrence was out on duty. Suspicions arising in consequence of these circumstances, an inquiry took place, and it was acknowledged that Meike had always been allowed a till in his master's box, and search being made, the box was found carefully wrapped up in some old linen. It was liberally allowed by the captain, that Pug had a right to remove evils from himself by the best means in his power; he was therefore pardoned. When the ship was in harbour, the two friends carried on their depredations on a large scale; but as every thing they took was deposited in Meike's till, it was easily recovered.

bread, fruit, cheese, and various commodities, used to be brought by women to supply the ship's crew; on which occasions Meike would not fail to take his station on the main rigging, whilst Pug descended among the women, who, not being well able to cope with him, either in strength or cunning, were considerable sufferers; Pug and Meike running off with whatever they liked best. A prevalent mode of defence was, however, at last adopted. Each of the women purchased a shilling snake, made of painted wood, divided into many joints, which, put in motion by pulling a string, had much the appearance of a living animal. When this formidable apparatus was put in motion against poor Pug, he was terrified in the extreme, and screamed and supplicated most piteously, and in an agony of fear plunged into the sea, from whence he was taken up into the ship, having narrowly escaped drowning. Mekie, during the scene, was heard to utter piercing cries, till he saw his friend safe on board again. Pug, after this adventure, never molested the merchant-women, yet he long continued to scold and chatter on their approach.

There was something tragical in the deaths of these faithful friends; Pug had been treated by the sailors, and over dosed with Madeira, and in a state of intoxication jumped overboard, when a shark, hovering about the vessel, seized upon him, and dyed the sea with his blood. Meike became melancholy after having lost his companion, and one night, turned out of his master's hammock for being troublesome, was found stretched out, cold and dead, in the morning.

General experience will unite all in the opinion, that bad habits and improper conduct will be always found among puppy dogs, as well as among spoiled children; in either case difficult of removal by any known method, except that of a proper and corrective education.

A puppy dog of the snarling genus, who had become troublesome to his possessor, and a common nuisance in the neighbourhood of his residence, after a long course of ill conduct, happened to bite the son of an itinerant showman. On this occasion, as the injury was considerable, complaint was violent, and the dog's friends were advised to put the offender to school under proper tutors, to be taught gentleness and good manners. In the showman's exhibition there was a large cage full of monkeys; among these there was one, who, possessing superior strength and

sagacity, had long presided as the master of his weaker brethren. To cure Ponto of his insolence and bad manners, he was placed among these associated monkeys. His tutors adopted the philosophical mode of treatment, and commenced by trying his temper and exercising his patience and fortitude. To this end, one twitched his ear and skipped away beyond his reach, without giving him a chance of revenging the affront; another pinched his tail, whilst a third pulled his hair. This exercise was continued till the pupil snapped, and growled, and became furious; threatening revenge which he had not the power to accomplish. Instead of intimidating his instructors, this insolence increased their efforts, and the lessons were repeated, with loud chattering and hooting of the whole company, till at last, Ponto, finding resistance vain, submitted with quiet resignation, and his tutors, observing the good effect of their lessons, at last left him to compose himself to rest. On the following morning fresh trials were prepared by the monkeys for their new pupil. The exertions called forth by his first lessons had helped to increase his appetite for food, and when he awaked in the morning he was keenly pinched by hunger. A plate with meat and other food of tempting appearance was brought for his breakfast, and he was licking his lips in anticipation of the pleasure of satisfying his appetite, when his tutors, perhaps judging with Hippocrates that low diet will abate the violence of a choleric disposition, emptied the plate in a moment, and began to dispute about the contents, to the astonishment and dismay of poor Ponto. His wrath beginning to appear, one of his tutors emptied the water-pot on his head; and, seeking to revenge himself, he received a violent blow from the empty vessel, which was thrown at him, and broken to pieces. So prevailing were the instructions and castigations of these tutors, that in the course of four short days (long indeed to Ponto) he came out of their hands with a disposition quite altered; he now thought the hospitable roof of his master a paradise of happiness, his kind treatment he gratefully remembered, and petulance and ill-nature were exchanged for gentleness and complacency.

It must be confessed this was a singular instance of the beneficial effects of discipline judiciously applied; but perhaps the youthfulness of Ponto was in his favour, and it may justly be doubted whether all the art and persc-

verence of all the pedagogues in the world could reform a single monkey from the propensities of mischief and whimsicality.

A nobleman on his travels, struck with the peculiar archness and shrewd appearance of a common monkey, exposed for sale, bought him. He was carried on board the marquis's yacht, and made fast in a corner of the hold. The heat of the weather, and the exercise of working his vessel, had induced the marquis to throw aside his neck-cloth and unbutton the collar of his shirt, and he sat prepared to eat some hot chops and potatoes; just at this juncture, pug, who had contrived to escape from confinement, entered the cabin, and having cast a longing eye on the viands, sprung forward, with one of his paws seizing the chops, and with the other taking up a hot potatoe, which he very cleverly dropped down his lordship's back, and scampered off with his prize, ascending the rigging of the vessel, the marquis hallooing and running about in the cabin with the potatoe down his back.

Pug was at last made to suffer for his mischievous tricks; for, attempting to steal a young pig, the door of the sty was pushed back by the enraged mother, and the offender was soon torn to pieces.

On one of the annual returns of the late king's birthday, the guns of C—— Castle were loaded and primed, ready to fire off on this festive occasion, and all the musical instruments left on the stand near the place, ready for the performers. A monkey had lived many years in the castle, rather solitarily, and having attained to a sober period of life, seemed to have accommodated his temper to his condition, joining to retired habits the gravity of a philosopher. This monkey was on the grounds, demurely watching the proceedings of the gunner and his companions, till they all retired to take some refreshment: on their departure the monkey visited every gun, and moistened the powder in each of them, in precisely the same manner as it is related of Gulliver that he destroyed the fire which threatened destruction to the diminutive palace of the queen of Lilliput. Having completed this exploit, he proceeded to the music-stand, seized the trumpet, an instrument for which he had an abhorrence, and recognized it as the cause of uneasy sensations; having laid it down again, he hastened to the adjacent shore and loaded himself with sea-weed, which, on his return he crammed into the trumpet, and seizing all the flutes he could find, ran

off to his retreat on the battlements. When the time for firing the guns arrived, the gunner applied his match, but to his astonishment and dismay, not a gun would fire, and he was enraged beyond measure to find that the powder was all wet. The musicians were also in the utmost confusion when they found the flutes wanting, and the trumpet rendered useless. A considerable time elapsed before the author of the mischief was discovered, against whom the enraged company vowed vengeance, and attacked him in his retreat on the battlements. Pug sustained the attack for some time, with great coolness, till a pebble giving him a blow, he instantly returned the compliment by pelting the assailants with the flutes he had carried off, and then began to use the tiles.

This monkey came to his end by falling into a cistern where carps were kept.

During the French revolution, one of the extirpated generals of that country retired to a small island in the Mediterranean. Remarkably fond of animals, he was very expert in taming them, and took a particular delight in reconciling those to each other's company, whose natural propensities and habits were at variance. Among the dependants on his bounty were two donkeys and a monkey; the antipathy of the donkeys to pug's playful temper so ill assorted with gravity and a sage deportment, that pug's life was frequently in danger from the unceremonious attacks of his companions. Pug determined to overcome malice by kindness; and examining the nature of their provender, never took the shortest excursion without bringing them vegetables or fruit. In process of time, kindness overcame animosity, and pug and the donkeys became as eminent for friendship and a reciprocation of kind offices, as they had before been notorious for their quarrels and ill-will towards each other.

As the life of friendship is dependant on mutual kind offices, the donkeys became so good-naturedly condescending as to suffer pug's frolics, and he soon found a method of bringing them to the good-humoured allowance of a ride, when the whim of preferring that mode of conveyance prompted him to desire it. He would place provender in their mangers, and then run to the animals, and by his chattering inform them of the circumstance; he would then leap on the back of one of them, which would immediately start off at full speed; on which, pug would scream and chatter his delight, urging his bearer forward

to win the race. So charmed was the old general with this exploit of his favourite, that he called on him to repeat it before his visitors ; particularly the English naval officers, whose visits were most frequent during the disturbed state of his native country, always expected and welcomed by him as the means of conveying important and interesting information.

Mr. Forbes states the following curious facts :—On his arrival at Dhuboy, while the Dunbar was repairing, he resided in a house, the back part of which was separated by a narrow court from that of a principal Hindoo ; this being a shady side, he usually retired to a veranda there during the heat of the afternoon ; and reposed on a sofa with his book. Here small pieces of tiles and mortar frequently fell about him, to which he paid no attention, till one day the annoyance became considerable, and a blow from a larger piece than usual made him turn to discover the cause. The opposite roof was covered with monkeys ; they had taken a dislike to his complexion, and had commenced a system of hostilities, which left the governor no alternative but that of changing his lodgings ; for he says he could neither make reprisals nor expect quarter.

One very singular use is made of this active tribe at Dhuboy. Duelling and boxing are equally unknown among the Hindoos : the tongue, however, in their quarrels, makes amends for the inactivity of their hands ; and vituperation, as in our own vulgar tongue, seeks to stigmatize the object of abuse, by disparaging his nearest relation ; but it does not, as with us, confine its reproaches to the mother of the offending party ; wife, sister, and daughter, all come in for their share of the slander. Here it is that the Hindoo's sense of honour is vulnerable ; such an affront can only be wiped off by the retort courteous ; and he who fails in this, or disdains to employ it, has recourse to the monkeys instead of the lawyers.

The tiles in Hindostan are not fastened on with mortar, but laid regularly one over another ; just before the wet season commences they are all turned and adjusted ; being placed in order then, they keep the house dry while the rains continue ; during the other eight months the misplacing of them is of no importance. It is when they have just been turned, and the first heavy rain is hourly expected, that the monkeys are called in. The injured person goes by night to the house of his adversary, and contrives to strew a quantity of rice or other grain over

the roof. The monkeys speedily discover it, and crowd to pick it up. They find that much has fallen between the tiles, and make no scruple of nearly unroofing the house—when no workmen can be procured to repair the mischief. Down comes the rain, soaks through the floor, and ruins the furniture and the depositories of grain, which are generally made of unbaked clay, dried, and rubbed over with cowdung.

A traveller, pursuing an animal he had wounded in the woods bordering the upper part of the Essequibo, in Demerara, on a sudden heard sounds of lamentation, resembling the cries of children suffering pain; he soon found the sounds proceeded from a company of monkeys; some seemed by their chattering to express rage at the remnants of sugar-canes and fruits strewed on the ground; and one was lamenting over the remnants of an old hat. Six or seven young monkeys were held down on the ground, whilst others were employed in inflicting on their exposed posteriors a smart flagellation. Carefully observing these proceedings, the gentleman was convinced, that the young ones had been left to guard the plunder, and had eaten it, and, being detected in this act of petty larceny, were suffering punishment for their transgression.

Numerous instances are recorded of the appearance of policy, and a preconcerted design, among monkeys, when acting in bodies, for the benefit of the whole.

A West Indian farmer, whose ground bordered upon an extensive forest, had sown a field of Indian corn: numerous monkeys inhabited the wood, and had very attentively observed the work of cultivation as it proceeded, and had noticed the rising plants till they arrived at perfection. The farmer had also the pleasure of observing the flourishing condition of his crop, and had actually ordered the reapers into the field. Of this intention it is not conceivable how the monkeys could be informed, unless it were from some motions of the workmen, or the master of the field; but they issued from the wood in vast numbers, forming themselves into long lines between the wood and the field. All was conducted in silence; each intent on the business in hand. Those in front of the lines plucked off the ears of corn with great dexterity, and passed them to his nearest companion, who handed them forwards from one to another till they reached the wood; in this manner the work proceeded till day-light, when the slaves found

them finishing their undertaking: but before the farmer could assemble his servants with weapons of defence, the whole of the corn was conveyed far away to their unknown retreat, and the whole troop had disappeared.

Whatever degree of intelligence we are inclined to allow the monkey species, we shall be compelled to acknowledge, that in numerous instances they possess passions and affections very like those of human beings; are sensibly affected by good or bad treatment, and will acknowledge favours and resent injuries.

A monkey, native of Africa, was the property of a gentleman at Bath. Adjoining the house of his master, there resided a widow lady who had three sons, of a sufficient age to be troublesome, mischievous, and obstinate; these claimed acquaintance with poor pug, solely for his annoyance and their own amusement. Sensible that opposition would prove ineffectual against so superior a force, pug endeavoured, by endearing tricks and amusing gestures, to conciliate kindness and good-will; but his efforts were in vain, for these ill-natured brats procured nuts full of mustard, crackers, wild-fires, and various offensive instruments; especially a syringe, of all other things most offensive to pug, whose ears and face were constantly assailed by water, stale beer, suds, and other liquids, thrown upon him by his persecutors. At length, their holiday-time ended, his enemies were sent to school; on their departure the mother began to repair and re-furnish her house; and when her arrangements were completed, pug happened to break his chain, and directly made for the enemy's fortress, to all appearance deserted. He found the window opened into the drawing-room, and the elegant new furniture covered with cloth; this he actually took off, seized a bottle of ink, and emptied the contents over the whole, not even omitting a mahogany foot-stool. After thus laying waste the country of the enemy, he returned to his quarters. The evidence against him was the empty bottle found in his possession; but his master, understanding the offensive treatment pug had received, considered this act of retribution as justifiable, and refused to pay the damages.

The imitative propensity was also strong in this monkey. His master was a profound politician, every morning reading the Courier at breakfast-time, in night-gown, cap, and slippers. Business having one morning compelled his master to leave the table earlier than usual, pug was found

seated in his chair, with his night-cap and spectacles on, and in his paw the Courier newspaper, upside down; alternately appearing to read, and waving his unoccupied paws, and chattering aloud.

Most kinds of monkeys are strongly inclined to gormandize, especially on any kind of food of which they are particularly fond. The traveller, D'Obsonville, relates, that frequently entering the ancient temples sanctified for the use of monkeys, the resident animals neither manifested surprise or alarm; viewing him with curiosity, their chief attention was directed toward the food he was going to eat, greedily longing to partake of it. For his amusement he always provided himself with parched peas; at first a few were scattered near the chief (for these monkey monks have always a chief or principal presiding over them), these the animal would always seize with avidity. When a larger supply was held in his hand, the principal would approach cautiously, take hold of the thumb of Mr. D'Obsonville, and take the peas out of his hand, keeping at the same time his eyes stedfastly fixed on those of the donor, as if suspicious of some sinister design, and laughter, or a sudden motion, would occasion ireful mutterings and a precipitate retreat. When a few were thrown at a distance, the principal seemed satisfied, but frequently struck those that came too near.

Large herds of monkeys, even of different species, live together in peace and amity in solitary and fertile places; but if a strange monkey makes his appearance amongst them, he is immediately attacked as an unwelcome intruder, and driven away. In these cases the herd seem to be anxious to retain their right of possession. An account is given by M. de Maisoupre of a singular contest of this kind, witnessed by himself and six other European travellers; it occurred in the inclosures of the pagodas of Cherinam. The interpoler was a large and strong monkey, who, on being discovered, was fiercely attacked. To effect his escape he ascended a pyramid eleven stories high. The top was a round dome, where, placing himself securely, he held his pursuers at bay, and successively attacked and threw down several of them to the bottom of the pyramid. His enemies at last retreated, with a great deal of noise and outcry, leaving him to pursue his course when the shades of night would allow him to escape unobserved.

Nothing seems to stamp such a lasting disgrace upon a monkey citizen as submission to slavery; if one be chained

in their neighbourhood, the whole society sympathize with him in his distress, and for a considerable time will make attempts to procure his liberation, but failing, and observing him at last submit to slavery, even if he should afterwards escape, they will not admit him into their society, but unmercifully beat and drive him away.

If, in their habits and qualifications, monkeys may be considered as bearing any resemblance to human beings, it is, perhaps, to such half-witted individuals as were formerly found in the houses of our great men, under the name of fools, or jesters, who, possessing the monkey tricks of whimsicality and cunning, were retained to promote merriment and provoke laughter. An audacious monkey of this character was permitted to run wild about the fort in which Captain Percival was governor, while in Columbia. This cunning and mischievous animal suddenly entered the captain's apartment, carrying away a loaf of bread; the alarm was immediately given to the occupant of the adjoining apartment, who instantly ran to secure his own breakfast, but he was too late, for the monkey was already ascending the roof of the house with a loaf in each paw, which he carried off in triumph.

It is related by Bouger and Condamine, that some tall and domesticated monkeys in Peru, having been witnesses of the operations of the academicians, in the management of instruments for taking positions and altitudes, were afterwards seen to go through a series of imitations; running to the pendulum, and then to the table, as if to write down their observations; and occasionally pointing the telescopes to the heavens as if to view the stars.

A military commander of high rank, residing at Cadiz, left a capital brass-mounted telescope at his chamber window, and on leaving the room, two philosophical monkeys, who had been carefully watching the general's motions from an adjoining court, immediately ascended to the window, and both rushed to the instrument, equally anxious to peep through it, one going to each end, and both leaving the instrument, staring at each other, as if equally disappointed in their expectations: one of them, however, returned, and to his great delight saw the moon, which he made known to his companion by jumping and chattering, and running to the opposite end of the instrument, much astonished that he could not find it there. "I do not think," says the narrator of this scientific anecdote, "that their optical knowledge was less than that

displayed by two sons of Erin, when disputing on the comparative merits of their telescopes. One affirmed, that he could, with his, see the people going into Lerybog church, distant at least six leagues: the other, not willingly allowing his to be inferior, immediately assured his friend, that O'Daly steeple and clock were seventeen miles from his window as a crow flew, and twenty-one by the road, yet he could bring it so near with his glass as to hear distinctly the clock tick."

APES.

The ORAN-OTAN and CHAMPANZEE.

THE Oran-otan inhabits woods, and is seldom found any where but in the most retired places, far from the habitations of men; in Borneo, China, the East Indies, and in Africa. The Champanzee is a native of Asia, Angola, and Sierra Leone.

The Portuguese traveller, Andrew Battel, informs us that, during his residence in Angola, these animals were abundant in the woods of that country; that they generally walked upright, placing their hands on the back of their necks; their sleeping-places in trees they fortified by twisting the branches together, and that when one of them died they would cover his dead body with leafy branches of trees. The natives usually made fires in the woods to keep off savage beasts, and when these fires were left burning, the oran-otans would encircle them, and remain till the last spark expired, but had not sense to add fuel to keep these fires burning. He asserts that their strength is equal to that of ten men, on which account none but the young ones could be caught.

Johnson relates, that on the banks of the river Gambia, these animals collect in troops of three or four thousand, and that whenever his party in sailing along the river passed the stations where these monkey troops were assembled, they mounted the trees and gazed upon the men, chattering and shaking the trees with vast force and quickness. Sometimes they took their stations on the rocks above the ships when at anchor; sometimes they would meet the men on shore and grin in their faces, but always fled when attacked, their swiftness securing their escape. One of them was shot from the boat, but his companions carried

away his dead body before the boat could reach the shore. In the island of Borneo, according to Le Compte, the oran-otan is hunted as we hunt stags in Europe, being a favourite diversion of the king and nobility.

The manners of the oran-otan, when in captivity, are gentle, and perfectly free from the ferocious temper of some of the larger baboons and monkeys. It is mild and tractable, and may be easily taught to perform a variety of actions in domestic life, with great dexterity. It has been frequently taught to sit at table and imitate the actions of the company in their manner of eating and drinking; pour out tea, and drink it without awkwardness or restraint; prepare its bed, and compose itself to sleep in a proper manner, &c. The oran-otan described by Buffon was mild, affectionate, and good-natured; his air melancholy, his gait grave, his movements measured; gentle in his disposition, and very different from other apes. He had neither the impatience of the Barbary ape, the maliciousness of the baboon, nor the extravagance of the monkey tribe. It will be said of this animal that he had the advantage of having received an education by which his natural habits were entirely changed; but instruction was more efficacious and better received by this than by others. Signs and words alone were sufficient to make the oran-otan act; but the baboon required a cudgel, and other apes a whip, for none of them would obey without blows. "I have seen," says this writer, "this animal present his hand to conduct the persons who came to visit him, and walk as gravely along with them as if he had been one of the company. I have seen him sit down to the table, unfold his napkin, wipe his lips, use a spoon or fork to carry the victuals to his mouth, pour his liquor into a glass, and make it touch that of the person who drank along with him. When invited to take tea, he brought a cup and saucer, placed them on the table, put in sugar, poured out the tea, and allowed it to cool before he drank it. All these actions he performed without any other instigation than the signs or verbal orders of his master, and often of his own accord. Far from doing an injury to any one, he even approached company with circumspection, and presented himself as if he wished to be caressed and treated with kindness."

Repeated experience creates habits in all animals, and a regular course of action results; but it is observable that some are possessed of a degree of insensibility far above

others; affected by the gentler passions; grateful for favours; fond of caresses and flattery. By these instruments wild and ferocious animals may be subdued to gentleness and a pacific demeanor.

So great is the ferocity of the oran-otan in a wild state, that it frequently attacks and kills negroes who go into the woods without companions, for it is so powerful that it can with ease overcome the strongest man. Its swiftness is also equal to its strength. Even without arms, with their fists, a company of them will drive away elephants but armed with sticks or pieces of wood they are very formidable. It is related by Bosman, that several of these apes met with two negroes near the English fort at Wimba, on the coast of Guinea, and if their companions had not come to their assistance they would have put out their eyes with sticks.

During the breeding season, the females are left in their habitations till their young ones attain strength to attach themselves firmly to their mothers by clasping their arms about them, in which state they will remain if the mother should be killed; always quietly allowing themselves to be caught.

On the failure of fruit and other articles of sustenance on the mountains, the oran-otan descends to the plains on the sea-coast, and feeds on shell-fish, particularly a large oyster, which is commonly found open; into these they cautiously insert a stone, fearful of introducing their paws lest the shell should close upon them. Some have considered this circumstance as indicative of a degree of rationality, but there are few animals that will not soon learn to avoid an evil formerly suffered, and it cannot be doubted that animals have some method of informing one another in such cases as these.

The male and female oran-otans, purchased by the French navigator, La Brosse, in Angola, in 1718, would sit at table like man and wife; use a knife, or fork, or spoon, and drink wine or other liquors, and when any thing was wanted at table would easily make themselves understood by the cabin boy; and when he refused to answer their demands, they would become passionately offended, and seize the boy by the arm and throw him down. A fit of sickness seized the male, and the people were required to attend upon him as if he had been a human being. During this illness he was twice bled in the arm, and seemed to be sensible of having derived benefit

from this operation, for he ever after held up his arm to be bled, when even slightly affected with the same indisposition.

The governor of Bombay had a pair of champanzees sent as a present, from the forests of the Carnatic. A settled melancholy seemed to indicate that they felt their captivity as a heavy misfortune, and many of their actions were similar to those of human beings, particularly the affectionate attachment subsisting towards each other. During the voyage, the female sickened and died, and her companion exhibited every appearance of extreme sorrow, refused food, and died, in two days afterwards.

Le Guat relates, that when in Java, there was an ape of this species, whose face resembled some of the grotesque figures of Hottentot women he had seen at the Cape. In the making of her bed, in laying on it; in binding a handkerchief about her head, and covering herself with the clothes, she exactly imitated human actions, and she had a singularly grotesque appearance as she lay composing herself to sleep. She died on her passage to Europe.

A male and female oran-otan were in the house of M Pallavicini, an official resident in Batavia, in 1759. They were tall of stature, and particularly with their hands and arms imitated human actions. If a person attentively looked at the female, she would throw herself into the arms of the male, hiding her face in his bosom.

Captain May gives an account of an oran-otan which had come from the kingdom of Benin, in Guinea, and had been taken very young and carried to Surinam; when of its full stature it was exceedingly powerful, and would take its master (a stout man) by the middle of his body, and raise him from the ground with the greatest ease, and throw him to the distance of two or three paces. It one day took up a soldier, carelessly passing by, and if its master had not been present, would have carried its burthen up into the tree to which it was chained. This animal had not attained its full stature till it had been twenty-one years at Surinam.

In 1698 a champanzee was brought into England; it had been caught in the interior of Angola, was a male, and was in company of a female when taken. He soon became the most familiar and gentle creature imaginable; he was delighted to wear a suit of clothes that had been made for him, and such parts as he could not put on he would carry to any person present to give him assistance. He

would lie in bed exactly as a human being; lay his head on the pillow, and pull the clothes about him to keep himself warm. He always recognized those who had treated him kindly on ship-board, and would embrace them with the strongest marks of affection. Many monkeys were on board the ship at the time of the passage, yet with those he would on no account associate.

In 1776, a female oran-otan was brought to Holland from the island of Borneo. She was of an exceedingly placid and gentle disposition, somewhat melancholy, but fond of the company of those to whose care she was consigned. Frequently on their departure she would throw herself on the ground, uttering doleful cries, and tearing to pieces linen that might happen to be in her way. If her keeper sat near her on the ground she would run to her bed, take some of the hay out of it and place it by her side, and anxiously and affectionately invite him to sit down upon it. She could walk indifferently on two or four legs. She one morning escaped, and was soon observed ascending to the top of the building. After some trouble she was caught, but could scarcely be restored by the exertions of four men: two held her legs, one clasped her round the body; and a fourth fastened the collar. Among other pranks during this excursion, she drew the cork of a bottle of Malaga wine, which she drank off, carefully replacing the bottle. Her food was bread, roots, and fruit; and she was particularly fond of carrots, strawberries, and the leaves and roots of parsley. She was also fond of sucking raw eggs, and would eat roasted or boiled meat and fish. Her usual drink was water, but she was very fond of drinking wine, wiping her mouth after drinking it. After eating she would use a tooth-pick in a proper manner. On ship-board she ran freely about, playing with the sailors; and would, like them, go for her mess into the kitchen. One day, seeing the padlock of her chain opened with a key, she sought a small stick, and turned it about to open it. When night came on she shook up the hay of her bed, and lay down, and covered herself with the coverlit. She was only two feet and a half high on her arrival in Holland, and had scarcely any hair, except on the back and arms, but on the approach of winter she was thickly covered, and that on her back was six inches long. At the expiration of seven months she died, and her skin was carefully preserved in the national museum.

M. le Compte remarks of an oran-otan, which he saw in

the straits of Molacca, that its motions and physiognomy were so strikingly significant, that a dumb man could not possibly have made himself better understood. It was of a gentle and affectionate disposition, and expressed a grateful sense of attentions and favours. It would make a noise and stamp violently with its feet, either to express joy or anger when refused or indulged with a favourite article of diet. Nothing was more astonishing in this animal, than its activity in running about the rigging of the vessel, and in jumping from rope to rope. Sometimes suspended by one arm, it would poise itself awhile; then turn suddenly round upon a rope, slide down, and again ascend with wonderful quickness. It could imitate all postures or motions, and has been known to throw itself down and seize a rope at a distance of more than thirty feet.

An oran-otan, caught at Borneo and taken to Java, was brought to England in 1817, in one of the ships which had gone out with Lord Amherst to China. Its height was two feet seven inches. He was allowed to range about free from all restraint during his residence at Java, and made no attempt to escape; but being put in a bamboo cage to be shipped off for England, he became outrageous, attempting to break the bars of his prison, in which he at last succeeded, and made his escape. A chain fastened to a staple was provided to secure him on ship-board; this he instantly unfastened, and ran off dragging the chain after him. He was at length, after many unsuccessful attempts to secure him in confinement, suffered to run at liberty about the ship. He soon became very familiar and infinitely amusing to the sailors, who would frequently chase him about the rigging. Sometimes he would distance his pursuers by mere speed; at other times, when just within their reach, he would suddenly seize any loose rope near him, and would swing himself from them in an instant. Sometimes, in a playful humour, he would swing within arms length of his pursuer, and having struck him with his hand, would again throw himself to a great distance. He usually slept in a sail at the mast head, and took great pains in making his bed even; he would then lay down and draw the covering over his body. If the sails were all set he would seek about for some other covering; a sailor's jacket, or blankets from some of the hammocks. When the ship reached a colder climate he suffered much from the change of temperature, and would often come

down from the mast shuddering with cold, at which times he would run into the arms of those he most esteemed, and cling round their bodies and derive warmth from them, and if attempted to be removed, he would cry out most violently. His food had been chiefly fruit at Java, with eggs, which he sought for, and which he sucked with avidity. In that country he made a place of rest for himself in a large tamarind-tree, twisting the branches and covering them on the inside with leaves. In this nest he would repose; his head projecting in the day-time, watching those who passed by with fruit, to whom he would descend, and request a portion of it. On ship-board his food was as various as the articles of diet it contained, but he preferred fruit, bread, and raw meat; in Java he drank only water; but on ship-board, coffee, tea, wine, beer, spirits. The natural temper of this animal was shown by his conduct when food was held out to him and then taken away; he became passionate, and would chase a person all over the ship to obtain it. The animal was the property of Mr. Abel, who had gone out with the expedition to collect subjects of natural history. This gentleman had learned the monkey to expect fruit or sweetmeats from him, being seldom unsupplied with articles of this kind in his pockets, and could therefore never escape the animal's notice when on deck. Sometimes Mr. Abel would ascend the mast-head to escape, but the monkey always overtook or intercepted him in his progress; and if the meeting was in the shrouds, he would seize Mr. Abel by the legs, and very adroitly rifle his pockets. If Mr. Abel had got the start so far that he could not be overtaken, his pursuer would climb up the loose rigging above his head and then drop down upon him suddenly; or if this gentleman, by descending, attempted to escape, the animal would slide down the ropes and meet him in the shrouds. The character of this monkey was neither distinguished by the antics, the grimaces, or the mischievous propensities of other animals of the same kind; he possessed a mildness of disposition, and a gravity allied to melancholy. Among strangers he would place his hand on his head, and viewing all around with a pensive aspect, would remain motionless for hours. Or if teased by the examination of those strangers, he would hide himself behind any covering nearest to him. He was strongly attached to those who treated him with kindness, would sit by their side, and run to them for protection. He was taught, by the boatswain of the *Alceste*, to eat with a

spoon, and he was frequently seen at the door of his cabin enjoying his coffee, perfectly unembarrassed by those who came to look at him. This monkey's favourite amusement in Java was to swing from the branches of trees, and jump from tree to tree, or run over the tops of houses. On shipboard his delight was to hang from the ropes and to play with the boys, whom he would excite to play by striking them with his hand as he passed, and engaging with them in a mock scuffle. Though of the gentlest disposition, yet repeated provocations would rouse anger and excite rage, which he expressed by showing his teeth, and attempting to bite the offender. He arrived in London in August, 1817, and when brought to the menagerie at Exeter 'Change, was found so tame and gentle that he was frequently allowed to take his food by the fire in the keeper's apartment. The lessons taught him by his new proprietors, were to stand upright on his hind legs, and to kiss the keeper. In the first of these achievements he is said to have poorly emulated the actions of a dancing dog, in the other he merely placed his lips against the keeper's face. After living in London through two winters, and growing much larger in all his dimensions, he died, April 1, 1819. The changing of his teeth was the immediate cause of his death, from which it was inferred that he must have been extremely young when caught. His skin and skeleton are in the College of Surgeons, in London.

A chimpanzee monkey was brought to London, and placed in Exeter 'Change menagerie, in July, 1819; he was of a small size and black colour, extremely mild and tractable. But dying soon after his arrival, little is known of his habits and manners.

An oran-otan was lately brought from Batavia to Boston, North America, in the ship Octavia, Captain Blanchard, and he died on the first night after his arrival. After his dissection Dr. Jeffries published the following account of this singular animal: "This animal was a native of Borneo, an Asiatic island under the equator, in longitude from 110° to 120° east. In external appearance he resembled an African, with the neck somewhat shorter, and the head projecting more forward. He was three feet and a half in height; covered with hair, except his face, the palms of the hands, and feet, which were all of the colour of a negro. The hair was of a dun colour, inclining to black. His ears were thin, small, and handsome, lying close upon the

head; his eyes were hazel-coloured, bright, and somewhat deep in the sockets; his brow was prominent, on which was very little hair; his nose was flat; his lips very large and thick, more so than those of the negro; his chin was broad and projecting, as was likewise the upper jaw; his chest was round, full, and prominent; his shoulders were set well back; his scapulæ were flat and close behind; his waist was small; his hips were flat and narrow; his arms were very long, the fingers reaching to the ancles of his legs; his lower extremities were short and small in proportion to the rest of the body; he had the spiral lines like a man on the tips of the fingers, and the lines of palmistry on the hands." Captain Blanchard gives the following account of his habits and manners: "He was put on board the *Octavia* under the care of this gentleman, and had a house fitted for him, and was provided with poultry and rice sufficient for the voyage. Captain Blanchard first saw him at Mr. Forrestier's house, in Batavia. While sitting at breakfast he heard some one enter a door behind, and found a hand placed familiarly on his shoulder; on turning round he was not a little surprised to find a hairy animal making such an unceremonious acquaintance. George, by which name he passed, seated himself at table by direction of Mrs. Forrestier, and after partaking of coffee, &c. was dismissed. He kept his house on ship-board clean, and at all times in good order; he cleared it out daily of remnants of food, &c. and frequently washed it, being provided with water and a cloth for the purpose. He was very cleanly in his person and habits, washing his hands and face regularly, and in the same manner as a man. He was docile and obedient, fond of play and amusement; but would sometimes become so rough, although in good temper, as to require correction from Captain Blanchard; on which occasion he would lie down and cry very much in the voice of a child, appearing sorry for having given offence. His food was rice paddy in general, but he would and did eat almost every thing provided for him. The paddy he sometimes ate with molasses and sometimes without. Of tea, coffee, and fruit, he was fond, and was in the habit of coming to the table at dinner, to partake of wine; this was in general claret. His mode of sitting was on an elevated seat, and not on the floor; he was free from some of the peculiar propensities of monkeys; his bowels were in general regular. The directions given by Mr. Forrestier were, in case of

sickness, to give him castor oil. It was administered once in the beginning of the passage, and produced full vomiting with effectual relief. He sickened a second time, toward the end of the voyage, and resisted the attempts of the captain and several strong men, to get the oil into the stomach: he continued to fail, gradually losing his appetite and strength, until he died, much emaciated, soon after the ship anchored. Obstruction of the bowels was the cause of his sickness and death. Captain Blanchard used to feel his pulse at the radial artery, and describes it to be like the human. His mode of walking was always erect, unless when tired; he would then move, or rest on all fours.

Pere Carbasson had a favourite oran-otan, which, from a continued course of kind treatment, became so fondly attached to him that its wish was to be always with him, and to follow him every where; he was therefore obliged to lock his favourite in a room whenever he went to perform the duties of his church. Once, however, the animal escaped, and followed the father to the church; where, silently mounting the sounding board above the pulpit, he lay perfectly still till the sermon commenced; then creeping to the edge, and overlooking the preacher, he imitated all his motions in so whimsical and peculiar a style of action, that the whole congregation were unavoidably thrown into a fit of laughter. The father, surprised and confounded at this unseasonable levity, severely rebuked his audiece, requesting their more mannerly and serious attention. The reproof, however, failed in its effect, for the congregation still laughed, and the preacher redoubled his vociferations and his action. This the ape imitated so exactly, that the congregation burst forth into loud and continued laughter. A friend of the preacher at length stepped up to him, and pointed out the cause of this strange conduct of his congregation; and such was the arch demeanour and whimsical appearance of the animal, that it was with much difficulty the father could command the muscles of his countenance, and keep himself apparently serious while he ordered the servants of the church to take him away.

The BARBARY APE.

IN the country from which these animals are named, they are so abundant that the trees appear sometimes covered with them; they abound also in India, Arabia, and Africa, and a few are found on the rocks of Gibraltar. They live chiefly on vegetables and fruit; and in their manners are ferocious and very mischievous. They will sometimes attack women going to market, and rob them of the provisions they are carrying with them.

Tavernier relates that the natives of some of the countries where these animals are most numerous, have a singular mode of amusing themselves by a kind of fight, excited in the following manner:—They place five or six baskets of rice, forty or fifty yards from each other, in an open ground, near the place where the animals are to be found, and beside each basket they leave a number of stout cudgels, about two feet long: they then retire to some adjacent hiding place, to observe and enjoy the sport. As soon as the apes believe the coast clear, they begin to come out in great numbers and approach the baskets. After grinning at each other some time, the boldest advance towards the baskets, but alternately advance and retreat, as if afraid to encounter each other. At length the females, more bold than the males, approach the baskets, and push in their heads and begin to eat; but the males, on the opposite side, immediately advance to prevent them, and the fight begins; the opposing combatants seize the cudgels, and beat each other till the weakest is driven off, when the victorious party immediately fall to and devour the rice as the reward of their labour.

Tavernier relates, that travelling along with the English president in the East Indies, several large apes were seen on the surrounding trees. These seemed so amusing to the president, that he ordered his carriage to stop, and requested M. Tavernier to shoot one of them; but the attendants, better understanding their manners, begged he would not rouse their animosity, which might prove of dangerous consequence. Not hearkening to their entreaties, but continuing his request, one of the apes was shot, when instantly all the companions of the sufferer descended and covered the president's coach, who would by no means have escaped their vengeance, had not the blinds

been drawn close ; and the attendants at last succeeded in driving them away. The assailants, to the number of sixty or seventy, followed the coach several miles before they desisted from the pursuit.

This ape prefers walking on four to two legs ; it is quick in its movements, and grinds its teeth when agitated by passion. Though gross in its manners and indocile, yet, by a course of harsh discipline, it is taught to dance to music, and suffers itself to be clothed. It expresses anger and appetite by the same grimaces. The climate agreeing well with this animal, it is very commonly seen in exhibitions in this country.

The PIGMY APE.

DESFONTAINES informs us, that in the country of ancient Numidia, particularly at Sara, these apes are exceedingly numerous, associating in large bodies. They subsist on the fruits of the country, pine-apples, nuts, figs, melons, and various roots and vegetables. They are very active and successful in plundering gardens and plantations : on these occasions they always station one of the party on the top of a high rock or tree, to give the alarm if any interruption or attack should be threatened ; this sentinel remains on duty during the whole transaction, and on the first appearance of danger gives a loud shriek, on which the troop immediately make a precipitate retreat with what they have already secured. If the alarm continues, they enter the woods, and, jumping from tree to tree, proceed rapidly on their way to the mountains. On these occasions the females perform their parts and keep up with their companions, though generally burthened with their young ones on their backs.

These animals do incalculable mischief in the corn-fields, treading down and destroying more than they take away. The females rarely bring more than one young one at a birth, which, soon after its coming into the world, clings so close to the mother that it cannot be detached by any ordinary force. These animals have never been known to breed when domesticated, not even in their native country. They are of a mild disposition and easily tamed, always chattering when pleased ; they are generally gay and frolicsome. When irritated by ill-treatment, they attack the offender and bite furiously. To kind treatment they are

peculiarly sensible, and will follow their benefactor, and give the strongest proofs of fidelity and attachment. The countenance of this ape changes colour, in some degree, like that of man, and gives a strong expression of fear and other passions. With both hands and feet they are exceedingly active, and being incurably addicted to mischief, break and destroy whatever comes in their way. Desfontaines states that he has frequently observed such as have seemed to be strongly secured, in a moment disengage themselves, throw off their chains, and make their escape. Those by whom attempts have been made to domesticate these animals, inform us, that their usual mode of walking being on all fours, it is difficult to make them stand or walk on two. Their delight is in leaping and climbing, and catching every thing within reach. Their mournful cry when in solitary confinement intimates a social disposition, and they seem as content to associate with mankind as with their own species.

In their native wilds they generally sleep in caverns, or hide themselves in the deep recesses of ancient woods. The inhabitants of those countries use their flesh as food, and have a singular mode of catching them to fatten. Near their haunts they place vessels containing strong liquors; the animals on the discovery of this treasure, meet together in considerable numbers, drink up the liquor, and becoming intoxicated, are easily taken.

BABOONS.

The COMMON or MOTTLED BABOON.

THIS baboon is found in the hottest parts of Africa, and is a fierce and formidable animal; in exhibitions it will sometimes shake the bars of its cage so strongly as to make the spectators tremble, and in its native forests it is a dangerous enemy to encounter: it will easily overcome three unarmed men. The females bear one young at a time, which they carry in their arms; they have never been known to breed except in hot countries.

While the people of Siam are engaged in the rice harvest, these depredators frequently come out of the woods in vast numbers and lay waste the villages, committing violent outrages, and taking away every article of food.

Always savage and ill-natured in confinement, and of

untameable fierceness, it grinds its teeth, and frets and fumes with the utmost fury. There was one of these animals exhibited in Edinburgh, in 1779, exactly answering the general description. He unceasingly presented the most threatening aspect to the spectators, attempting to lay hold of all who came within his reach, making a deep grunting noise to express his disappointment. Baboons are fond of eggs, and one has been observed to put eight into his cheek pouches, and afterwards take them out deliberately, one by one, breaking their ends and swallowing their contents. They will not eat meat unless cooked. They manifest great fondness for wine and spirits. During Mr. Penant's residence at Chester there was a peculiarly fierce animal of this kind exhibited; its voice, like the distant roar of a lion, sounding somewhat inwardly. It never stood on its hind legs except by compulsion, but frequently sat erect, placing its arms across. It was fond of cheese; and when ears of corn were given, it would carefully pick out the grains and eat them.

The MANDRILL, or RIB-NOSED BABOON.

THIS animal has a disgusting and hideous physiognomy, indicative of every savage and vicious propensity; and its appearance is truly conformable to its character. All the usual methods used to subdue the savage tempers of other beasts have entirely failed when applied to this. Possessing a power far superior to man, and of unsubdued temper, it yet remains the dread of keepers of wild beasts. Its cry is horrid, as it issues apparently rather from the throat or belly than the mouth, forming a sonorous but harsh pronunciation of aou, aou. Till the age of two years its face is black, and the canine teeth have not appeared, but at this period of its life it begins to change. These animals will subsist on about three pounds of carrots, fruit, or bread, per day. When nuts are given they crush them between their teeth, swallowing both shells and kernels. They drink fermented liquors, wine and spirits, with greediness.

They are brought from the Gold Coast, the East Indies, and the islands of the Indian Archipelago.

The DOG-FACED BABOON.

THESE animals are found in various parts of Asia and Africa. They usually associate in very large companies, and when strangers approach ascend the trees, which they shake violently, making a loud chattering noise: they frequently go out on plundering expeditions, and place centinels to give notice of danger; and so great are the apprehensive fears of the land proprietors, that armed men are employed to guard against their depredations. On the approach of any person to their haunts, these animals raise an universal and dismal cry for a few minutes, and then retreating to their secret haunts, observe the most profound silence. When they descend to the plains it is generally for plunder, and the fruit they steal from the gardens is broken to pieces and crammed into their pouches. When the centinel sees a man he raises a loud yell, and a precipitate retreat commences, the young ones jumping up on the backs of the parents.

If a weary traveller or other person happens to sit down in the fields to eat his brief meal, these cunning animals will very commonly steal behind him and snatch away his provision, or whatever they can lay hold on, and seating themselves at a short distance, will devour their prize before the owner's face, and frequently hold it out to him with such arch grimaces and gestures as cannot fail to provoke laughter.

They are so numerous in the mountains that they cannot always be passed with safety, as they sit undismayed on the tops of high rocks, and hurl down massive stones, which sometimes crush the unsuspecting passenger. A gun is in these cases of necessary use to keep them at such a distance as may render the stones they throw harmless.

Their manners are described with accuracy by Lade:—
“We traversed a great mountain near the Cape of Good Hope, and amused ourselves with hunting large apes, which are very numerous in that place. I can neither describe all the arts practised by these animals, nor the nimbleness and impudence with which they returned, after our pursuit of them. Sometimes they allowed us to approach so near, that I was almost certain of seizing them; but when I made the attempt, they sprang at a single leap at least ten paces from me, and mounted the trees with

surprising agility. They thence looked at us with great indifference, and seemed to derive pleasure from our astonishment. Some of them were so large that, if our interpreter had not assured us they were neither ferocious nor dangerous, our number would not have appeared sufficient to secure us from their attacks. As it could serve no purpose to kill them we did not use our guns. But the captain levelled his at a very large one seated on the top of a tree. This kind of menace, of which the animal perhaps recollected his having sometimes seen the consequences, terrified him to such a degree, that he fell down motionless at our feet, and we had no difficulty in seizing him. We tied his paws together, but he bit so furiously when he recovered from his stupor, that we were obliged to tie our handkerchiefs round his head, and it required all our dexterity and efforts to keep him.

These baboons have been rendered docile by proper treatment. But they have always been found to retain a strong sense of an injury, and an inclination to revenge it. They may, according to Kolben, be made as useful in protecting property as any house-dog in Europe. The Hottentots believe these animals can speak, but refrain from the exercise of that faculty for fear of being made to work. They will eat cooked meat or fish, but not raw, being not naturally carnivorous. When kept chained to a pole, they will show wonderful feats of agility in evading the blows of any one that attempts to strike them, in leaping and in climbing the pole. It is impossible, at the distance of a few yards, to hit with a stone one of these animals thus tied to a pole; he either catches it like a ball in his paw, or he avoids it in its course with astonishing precision. Sometimes they have been hunted by dogs, but it is found necessary to employ a considerable number for the purpose, for this baboon easily overcomes them. The celebrated *Kees*, which proved so exceedingly useful to M. Vailant, is believed to have been an educated baboon of this kind; it was more watchful than any of his dogs, and frequently warned him of the approach of dangerous animals, when the dogs were unconscious of any such being near. Baboons of the dog-faced and ursine kinds (which are very similar to each other) have frequently been brought into England; and in February 1820, two young ones were exhibited at Exeter 'Change.

MONKEYS.

The EGRET MONKEY.

TRAVELLERS have observed these monkeys, in great numbers, and very active, in the forests of Southern Africa, in India, and Java. During the night they are heard on the tops of the trees incessantly chattering. Like many others of the monkey tribe, they frequently go in troops to plunder the gardens and plantations. If they enter a field of millet, they immediately proceed to fill their mouths and each paw with as much as they can carry; with a quantity under their arms, and with this burden, they leap away to their retreats, on their hind feet. If pursued, they throw away all but what is in their mouths, that they may insure their escape by running on all fours. In collecting maize they throw away such ears as are not perfectly ripe and fit for their purpose; by which they frequently do more damage by what they leave pulled up, than by what they take away.

The egret monkey, if taken young and properly attended to in its bringing up, will prove mild and tractable. M. Audebert relates that he has seen a female monkey of this kind confined in a cage, very attentively nursing a young pigmy ape that had been given to her. She was carefully attentive to its wants, and folded it in her arms, and caressed it, and held it to her bosom. But few animals are more dirty than this; its form is also loathsomely ugly.

The CHINESE MONKEY.

In the East Indies and the Indian Islands these little animals are found exceedingly troublesome in sugar plantations and corn fields. Like other monkeys they go in a numerous body, and place centinels to watch, whilst the main body are busily employed in loading themselves with as much plunder as they can carry in their right arm, with which, when properly secured, they run off to their retreats, on three legs. When pursued, and in danger, they throw away their prize and scramble up the trees to save themselves. On the failure of corn, fruit,

and succulent plants, these animals eat insects, and sometimes are found by the margins of rivers, and about the sea coast, to catch some kinds of shell fish; they are said to put their tails between the pincers of crabs, and drag them away and eat them, at their leisure. They also subsist sometimes on cocoa nuts, being well acquainted with the method of extracting the juice for drink, and the kernels for food. The mode of catching these animals, is by placing a cocoa nut with a hole in it, near their haunts. This is watched till the monkey comes and finds it, and with some difficulty gets his foot into the hole; he is then taken, before he has time to extricate himself. Like most of the monkey tribe, these little animals are wonderfully active, leaping from tree to tree, even when at a considerable distance from each other. Pryard informs us, that in Calicut, formerly, they were so numerous and audacious, that the inhabitants were obliged to put trellises to their windows to hinder them from entering and plundering their houses.

The STRIATED MONKEY.

THESE beautiful little creatures associate, and form communities, on the tops of trees; living chiefly on nuts, fruits, and farinaceous vegetables, and some on fishes and insects. A monkey of this kind, brought from the East Indies, would eat nuts, but not fruit, and was particularly fond of the smaller kind of spiders and their eggs; but would not touch the larger ones: it would eat common flies, but refuse the large blue-bottle fly.

One of these animals was in the possession of Mrs. Kenyon, formerly midwife to the royal family; biscuits, fruit, various kinds of vegetables, insects, and snails, were among the articles of food it preferred: once it seized a gold fish, which it eagerly devoured; and afterwards some eels were thrown to it, which gave it considerable alarm by some of them twisting round its neck; its courage, however, returned, and it seized and devoured them.

The striated monkey is easily tamed, and becomes very playful and gentle. These animals are so hardy as to bear young in the southern parts of Europe. M. Audibert informs us that, at Paris, a couple of striated monkeys had young ones, which clung so fast to the female

that she would rub them off against a wall or any other thing that stood in the way; on which occasions the male would run and take them up and fondle and nurse them till the mother received them again. When young they are very ugly and nearly without hair. They have a musky colour, and their voice is between a hissing and a whistle. They retain an inveterate antipathy to cats.

The HOWLING MONKEY.

It is truly horrible to hear the howling monkeys at night in the woods; and the first time they are heard by a stranger it seems to his imagination like the fearful growlings of a herd of wild beasts about to issue from some nearly adjacent forest, when in truth the sounds are from a company of monkeys, at a very considerable distance. It is said that this concert of discordant sounds sometimes resembles the screaming of an immense herd of swine; sometimes it may be compared to the rolling noise of drums. They are said to be very methodical in performing this vocal concert. One of them having mounted the higher branches of a tree, the rest of the performers seat themselves below; the monkey on the top of the tree first commences, and continues to howl by himself for a considerable time; till on a signal being given the whole of the assembled monkeys join in chorus. The performance continues till a signal is given by the master monkey, and then ceases. The time chosen for these terrific exhibitions is immediately after dark; and about two hours before day-break. These animals are enabled to make these noises by means of a peculiar bony or cartilaginous organ in the throat, which augments the sound in a surprising manner.

The howling monkey is usually seen in troops of twenty or thirty in number, but never considered to be dangerous; and they always run away in seeming terror when hunters or others appear; but will sometimes tease and threaten single individuals who approach their haunts. Dampier relates, that in the bay of Campeachy, these animals jumped from tree to tree above his head, making a frightful noise, with strange grimaces and antics. One large one threw sticks at him, and greatly alarmed him by springing forward: but, instead of coming upon him,

swung backwards and forwards, making mouths at him. In this manner they followed him to the huts where his companions were waiting.

When M. Oexmelin was in South America, he was engaged in hunting these animals, and describes their sagacity in discovering the intentions of those who meditated an attack upon them, and their activity in securing their retreat. They seemed also particularly attentive to the safety of their companions, and in their distress never left them behind. In constantly jumping from tree to tree, at great distances from one another, they never missed securing themselves from seizing the branch aimed at, sometimes with their hands, sometimes their tails. They will remain so firmly fixed to the trees when wounded, that they are not easily removable till they die and begin to putrify. Fifteen or sixteen of them were shot by M. Oexmelin, and his people, before one could be taken.

Dampier observed these monkeys by the sea shore feeding on oysters, to procure which they broke the shells between two stones.

These in common with other species bring two young at a birth, which as they advance in growth so firmly attach themselves to the mother, that they can by no other means be procured than by shooting her. When in captivity, they lose their voice, appear sad and sorrowful, and soon pine away and die. During their confinement some kind of active exertion seems absolutely necessary, and they will continue in motion a long time if a pole be placed on high so that they may jump about, and alternately suspend themselves by their hands, or by their tail hanging in that posture with their heads downwards. Different voyagers describe the flesh of these animals as delicious eating, resembling that of mutton. But their heads, served up in soups, exactly resemble the heads of children; and, to the minds of persons of humane feelings and delicacy of sentiment, their hands, feet, and arms, and indeed every part of their bodies, impress so strongly on the mind the painful idea of devouring a fellow creature, and a human being, that an insuperable disgust is generally the consequence.

"When I had shot and wounded one of these animals," says Dampier, "the poor sufferer turned its broken leg or arm from one side to the other, with so troubled and mournful an aspect, as would have affected the hardest heart with compassionate feelings."

The FEARFUL, or BUSH-TAILED MONKEY.

THIS is the most active and amusing animal of the monkey tribe; even the most incurious of the South Americans, who are little observant of surrounding objects, are commonly seen to stop their canoes to witness the skill and adroitness of these animals. They are generally found in troops of from twenty to forty in number, assembled on the tops of forest trees. They frequently whistle, and when offensively treated, shake their heads hastily, and in an angry tone pronounce the syllables *PI CA ROU*; they are as active as the four-fingered monkey with their hands and feet, but their tails are not made so generally useful as that of the howling monkey.

The fearful monkey is better able to bear the changes in our climate than any other of those of South America, and will live comfortably in a room without fire, if properly attended to. They are distinguished by peculiar fondness for their young. In the year 1764, a pair of these monkeys, at Bourdeaux, had a young one; the male testified an unbounded affection for it, and they each of them by turns carried it about, and fondled and caressed it incessantly.

These animals are so gentle and tractable, when kindly treated, that there is no need of using a chain to confine them. Yet, if left to run about without restraint, they prove very troublesome, from their constant activity and inquisitive disposition. They eat bread, roots, and insects of all kinds, especially spiders, which they eagerly seek and devour. They are kept as guards to houses, in Cayenne, and preferred to dogs, for that purpose. In their attachments they are exceedingly whimsical, and whilst toward one person they manifest the greatest partiality, toward another their aversion seems unconquerable.

The SQUIRREL MONKEY.

CAPTAIN STEDMAN relates of these animals that, in Surinam, he saw them regularly passing in files like a little army, on the tops of the trees: their young ones on their backs, in appearance not unlike knapsacks. In their progress each of them, as they arrive at the last branch of a tree, jump from that to the extreme branch

of the next, followed by the whole troop in succession. On these occasions it is very wonderful to see them, with never-failing success, jump from one tree to another, sometimes at very considerable distances, and seizing the branch to which their aim was directed.

The FOUR-FINGERED MONKEY.

THESE animals are of a bold, active, and enterprising disposition. They are found in vast numbers in the dreary forests of South America. In their frequent plundering expeditions they place centinels at several points, on the tops of trees, to give warning if there be any appearance of danger. Ulloa asserts that when these animals in their progress come to a chasm among the trees, where the distance is too considerable to jump over in the usual way, they have been seen to attach themselves to each other by their feet, hands, or tails; and several of them, suspended in this manner, swing backwards and forwards, until that at the extremity seizes a branch of the distant tree, and the remaining monkeys quickly succeeding at the opposite end of the chain, the whole body of them are drawn over to the opposite side. They are said to pass rivers, where the banks are steep, by a similar contrivance. They are very numerous in Guinea, where they subsist on roots, fruit, insects, and shell-fish.

In woods and forests, large bodies of these animals are commonly found, and they seldom manifest any great degree of fear, or timidity, frequently throwing branches of trees at men as they pass along under the trees; on these occasions assuming strange and whimsical attitudes and gestures, to the great amusement of the spectators: but if a gun be fired, though very numerous, they all suddenly disappear. They pass from tree to tree with wonderful agility; and have been seen to run up the tallest trees, and, suspended by their tails to one of the boughs, swing backwards and forwards, until the force acquired by this motion enables them to dart forward into the next tree. They use their tails for numerous purposes, as the elephant does its proboscis, and can take up very small objects with it. They have been observed to carry hay, and make themselves beds, laying it even, and spreading it out with their tails; one has been known to lay hold of a squirrel put with him into a cage, and to play

with it and throw it about with his tail, to the great amusement of the spectators. When confined, they become tractable, but dull, and have always a countenance expressive of gravity, inclining to melancholy. In confinement they seem to shun observation, sitting with the head bent upon the breast, and when touched, utter a feeble and melancholy cry; even when indulged with food to which they are partial, the vocal sound to express pleasure and satisfaction sounds like a note of sorrow. They are too delicate to bear the extremes of our northern climate, and seldom survive the vicissitudes of a long voyage.

Of this species Captain Stedman relates, that he observed one come to the water side as he sat in his barge, and that after drinking, it rinsed its mouth, and cleaned its teeth with its fingers. He also shot one of them, proposing to have it made into soup; and the circumstances attending the occurrence made an impression on his mind which could never be effaced. "Seeing me," says this author, "near the bank of the river in the canoe, the creature made a halt from skipping after his companions, and being perched on a branch that hung over the water, examined me with attention, and with the strongest marks of curiosity, no doubt taking me for a giant of his own species, while he chattered prodigiously, and kept dancing and shaking the bough on which he rested, with incredible strength and agility. At this time I laid my piece to my shoulder, and brought him down from the tree into the stream; but may I never again be witness to such a scene! the miserable animal was not dead, but mortally wounded. I seized him by the tail, and taking him by the hands, to end his torment, swung him round and hit his head against the canoe: but the poor creature still continuing alive, and looking at me in the most affecting manner that can be conceived, I knew no other means of ending his murder, than to hold him under the water till he was drowned; while my heart sickened on his account, for his dying eyes still continued to follow me with seeming reproach, till their light gradually forsook them, and the wretched animal expired. I felt so much on this occasion, that I could neither taste of him nor of any other which had been shot at the same time, though I saw that they afforded to my companions a delicious repast."

The BENGAL LORIS.

SIR WILLIAM JONES has given a very interesting account of this animal, one of which he domesticated: this account is to be found in the fourth volume of the Asiatic Researches.

"In his manners he was for the most part gentle, except in the cold season, when his temper seemed wholly changed; and the Creator, who made him so sensible of cold, to which he must often have been exposed, even in his native forests, gave him, probably for that reason, his thick fur, which we rarely see in animals in these tropical climates. To me, who not only constantly fed him, but bathed him twice a week in water accommodated to the seasons, and whom he clearly distinguished from others, he was at all times grateful; but when I disturbed him in winter, he was usually indignant, and seemed to reproach me with the uneasiness which he felt, though no possible precautions had been omitted to keep him in a proper degree of warmth. At all times he was pleased at being stroked on the head and throat, and he frequently allowed me to touch his extremely sharp teeth: but his temper was always quick; and when he was unseasonably disturbed, he expressed a little resentment, by an obscure murmur, like that of a squirrel; or a greater degree of displeasure by a peevish cry, especially in winter, when he was often as fierce on being much importuned as any beast of the woods.

"From half an hour after sun-rise, to half an hour before sun-set, he slept without intermission, rolled up like a hedgehog; and, as soon as he awoke, he began to prepare himself for the labours of his approaching day, licking and dressing himself like a cat, an operation which the flexibility of his neck and limbs enabled him to perform very completely; he was then ready for a slight breakfast, after which he commonly took a short nap; but when the sun was quite set, he recovered all his vivacity. His ordinary food was the sweet fruit of the country; plantains always, and mangoes during the season; but he refused peaches, and was not fond of mulberries, or even of guaiavas: milk he lapped eagerly, but was content with plain water. In general he was not voracious; but he never appeared satisfied with grasshoppers, passed the whole night, whilst the hot season lasted, in prowling for

them. When a grasshopper, or any insect, alighted within his reach, his eyes, which he fixed on his prey, glowed with uncommon fire; and having drawn himself back to spring on it with greater force, he seized the prey with both his fore-paws, but held it in one of them while he devoured it. For other purposes, and sometimes even for that of holding his food, he used all his paws indifferently as hands, and frequently grasped with one of them the higher part of his ample cage, while his three others were severally engaged at the bottom of it; but the posture of which he seemed fondest, was to cling with all four of them to the wires, his body being inverted. In the evening he usually stood erect for many minutes, playing on the wires with his fingers, and rapidly moving his body from side to side, as if he had found the utility of exercise in his unnatural state of confinement.

"A little before day-break, when my early hours gave me frequent opportunities of observing him, he seemed to solicit my attention; and if I presented my finger to him, he licked or nibbled it with great gentleness, but eagerly took fruit when I offered it, though he seldom ate much at his morning repast; when the *day brought back his night*, his eyes lost their lustre and strength, and he composed himself for a slumber of ten or eleven hours.

"My little friend was, on the whole, very engaging; and when he was found lifeless, in the same posture in which he would naturally have slept, I consoled myself with believing that he died without much pain, and lived with as much pleasure as he could have enjoyed in a state of captivity."

The LEMUR.

LEMURS differ from monkeys in having heads approaching nearly to the shape of those of dogs, and in the greater length of their hind legs. In their fore-feet, which are hand-like, and in their general habits, as well as the form of their bodies, they much resemble some species of monkeys.

M. D'Obsonville purchased a Lemur in India, in 1775. His voice, when not disturbed by passion, was pleasant and approaching to a whistle; when enraged by an attempt to take his prey from him, he uttered a harsh and unpleasant note, expressive of painful feelings. He was

generally silent, and his aspect was melancholy; he slept most part of the day, with his head resting on his hands, and his elbows between his thighs. He was peculiarly sensible to all outward impressions, and always prompt to seize insects, or small animals that came within his reach. He seemed to be affected painfully by sun-shine, or any glaring light; yet on examination of the pupils of his eyes, they did not appear to be in any degree contracted. He had a cord round his middle during the first month of his captivity, which he would frequently examine with a woeful countenance, expressive of heart-felt sorrow. He bit M. D'Obsonville four or five times, when attempting to seize and take him up; but becoming more familiar and tractable, he was allowed the liberty of his master's bed-chamber.

This little animal would begin to rub its eyes, towards evening, and seek a place of repose, on some elevated situation. If birds, or other living things, were placed within his reach, he would very cautiously approach, till within a short distance, and would then dart forward, suddenly seizing his prey. When caressed by his master, he would take the end of his fingers and gently press them in his fore-paw, at the same time fixing his half-open eyes upon those of M. D'Obsonville, to express his gratitude and affection.

The MACAUCO or RING-TAILED LEMUR.

THIS animal is better known in its domesticated state, than in its natural situation, among its native forests of Madagascar, and the eastern islands. It is, however, known that they live in troops of at least fifty, and are distinguished by great activity. In the Museum of Natural History at Paris, there was a Macauco, which had subsisted in an European climate more than nineteen years. During all this period, he seemed to suffer much from the cold during the winters. He was kept in a warm room with a fire, and would very frequently sit before it, and hold out his little arms toward the warm blaze, as he frequently would do in summer, when the warm rays of the sun shone upon him. He even burnt his whiskers by his anxious wish to procure warmth. When he composed himself to sleep, he rolled his body up in the shape of a ball and covered his head with his bushy tail. Not

having been accustomed to a chain, when brought to the museum, he was allowed to range at large about the conservatory, and from his natural activity, and a habit of examining and turning over every thing within his reach, he was found very troublesome. A bed was placed above the door, for his repose, and he regularly retired to it when night came ; but always previously prepared himself for rest, by violent exercise in running and jumping about in every part of the room ; he would then lie down, and in a few minutes be asleep. He was fond of fruit, carrots, and baked meats, and would eat bread. He was of the most gentle disposition, and very grateful for kind treatment. Several of these animals have been brought to the Tower, in London, and in their habits and aversion to cold were exactly similar to those kept at Paris.

They did not usually sleep in the day time, and would coil themselves up, when night came, with the head bent upon the breast, and the tail closely wrapped round the body, and in this posture they composed themselves to rest.

BATS

THIS animal, from its singular conformation, might seem to form the link between quadrupeds and birds ; but it is only in its power of raising itself up in the air that it resembles a bird : in other respects, there appears no similarity. The art with which it is formed for flight is truly wonderful. It does not, however, seem well-formed for walking, its long projecting folded wings being impediments in its way. The British bats remain torpid during the winter, without either food or motion, in some obscure cavity of an old ruin, or in the hollow of a tree. In this state, the animal functions remain nearly suspended, the heart beats so slowly as to be difficult of perception ; digestion ceases, and the natural heat is exceedingly diminished. Mr. White relates that he saw a tame bat which would take flies or insects, or pieces of raw flesh out of a person's hand ; he observed, that though it could easily raise itself from the ground, yet if it were placed in a hollow rather than an elevated situation, it could not so easily rise.

Spalmanzani made numerous experiments on the Horse-shoe and Noctule bat, and the result of those experiments convinced him that these animals possessed some additional sense, by which they are enabled to avoid obstacles, when in motion, even when deprived of sight. When their eyes were covered, as well as when quite destroyed, they would fly about in a room, carefully avoiding the sides, or any thing projecting in a narrow passage, they would invariably turn where the passage turned at right angles, and always keep in the middle. They never failed to avoid them, even passing carefully between two of these impediments to obstruct their progress, when placed so near together, as to render it necessary to contract their wings as they passed. It has been supposed that the new sense alluded to is in the expanded nerves of the nose; but it has with greater probability been considered to constitute a peculiar modification of the sense of hearing. The female bat will fly about with her young ones firmly attached to her body, even when they are grown, till they are nearly of her own weight.

The VAMPIRE BAT.

THIS name is given to a large species of bat distinguished by its natural propensity to suck the blood of living animals during their sleep; yet this propensity is common to most of the bats of Java, and other hot climates. It is exceedingly dangerous to sleep in the open air, in the island of Java, with the extremities uncovered, or in the house, with the door or window open. Some of the species are so dexterous in their operation of opening a vein, and inserting their acculeated tongue into the aperture, and quickly extracting a quantity of blood, that many have been known to pass insensibly from the state of sleep to that of death. Besides blood, these animals also subsist on the juices of some kinds of fruit; and they are so fond of the juice of the palm tree, that they have been known to drink it, till they fall down in a state of insensibility.

Finch, the traveller, informs us, that "they hang to the boughs of trees, near Surat, in the East Indies, in such vast clusters, as would surprise a man to see; and the noise and squalling they make is so intolerable that it were a good deed to bring two or three pieces of

ordnance, and scour the trees, that the country might be rid of such a plague as they are to it."

We learn from Dampier, that in one of the Philippines innumerable flocks of bats were found, so large, that none of the company could reach from the tip of one wing to that of the other; and that as soon as the evening commenced, they were seen to fly from that island to another at a short distance, and that they continued to fly in regular succession on their departure, and also on their return in the morning, during several hours every day.

More than twenty thousand bats were observed, in the space of a mile, at Port Jackson, in New Holland; and some that were caught alive eat out of the hands of those who caught them, and in a few days became as completely domesticated, as if they had been brought up in the house. One of these bats, belonging to Governor Philip, would hang by one leg a whole day, without changing its position. Vampire bats cannot support the severity of the cold season in this country, and attempts to preserve them alive here have always proved unsuccessful: their smell is more rank than that of the fox; yet the Indians esteem their flesh excellent, and at certain seasons they grow fat, and are then esteemed delicious. In the isle of Bourbon, the French put their flesh into their soup, to give it a relish.

The SPECTRE BAT

DOES not differ materially in its habits and economy from the Vampire; it is found in South America, and in some of the islands of the Pacific Ocean. Various travellers have ascertained its eagerness to suck human blood.

Captain Stedman relates, that sleeping in the open air at Surinam, he was awakened about four o'clock in the morning, and exceedingly alarmed to find himself covered with blood, but feeling no pain. Rising up hastily, he ran to the surgeon, as he was all over besmeared with blood. It was soon discovered that he had been attacked by a bat, which was judged by the surgeon to have taken from him about fourteen ounces of the vital fluid. When these animals discover a person in a sound sleep, they cautiously approach, gently fanning with their extended wings; by which means a soothing influence is thrown over the sleeper, which renders his sleep the more pro-

found, whilst the bat bites a piece out of the tip of the great toe, not larger than a pin's head, and through this aperture he sucks, till he is obliged to disgorge the blood he has swallowed. This operation is continued till the animal is scarcely able to fly, and the patient is frequently exhausted past recovery. Sometimes the bite is made on the tip of the ear, and always in some part where the blood flows spontaneously.

Sometimes these animals are seen in large clusters, hanging to each other like a swarm of bees. We are assured by Mr. Forster, that in the Friendly Isles he has seen more than five hundred suspended together from the branch of a tree, some clinging to each other by the hind, some by the fore feet.

The SLOTH.

THE most remarkable animal of the sloth kind is the three-toed sloth. This animal is about as large as a cat, has a very ugly countenance, and its claws are long, like fingers. It is a native of South America, and generally found on the tops of trees; and so slow in its motion, that it is two days in climbing up, and as long in descending from a tall tree. The sloth is of all animals the slowest in its motions: the expression of its countenance strongly excites pity. It possesses extraordinary strength in its feet, and its hold of what it seizes is so exceedingly tenacious, that nothing can escape from its gripe. When attacked, it fixes its eye upon its enemy, and by its attitude, and the tears which it sheds, most eloquently persuades, that an animal so abject, and so defenceless, ought not to be treated harshly, and with cruelty.

A provincial of the Jesuits, resident in South America, had one of these animals brought to the college at Carthagena, and put a long pole under it, which it seized immediately and held fast; it was then lifted up, and suspended between two beams of wood for forty days without food; and, to consummate this unparalleled cruelty, was then taken down to be worried to death by a dog: but it seized its antagonist in its claws, and held it fast till both animals died of hunger. These animals utter a plaintive cry, in exact musical progression, regularly ascending and descending through the octave; it is most active in the night-time, but even when its motions are

quickest, they seem as slow and regular as if directed by machinery. During the expedition under Woodes Rogers, a sloth was brought on board the ship, and placed by the mizen shrouds, from whence it climbed up to the mast-head, but was two hours in ascending. It always prefers an elevated station for its place of rest.

One of the two-toed species of sloths was some years ago in the possession of the Marquis of Montmirail, which had been fed with sea-biscuit: but as soon as it could be supplied with green leaves, it fed upon them with avidity. It was three years supported in this manner, and became so heavy and so inactive, that all its energy was exhausted in the effort to devour its food, apparently not even recognizing the hand by which it was fed.

The RHINOCEROS TRIBE.

THESE huge and unwieldy animals are only found in tropical climates. In size they are next to the elephant, and in his rage he is formidable to his enemy, by the strong horn of bony hardness projecting from his nose; his skin is covered by a hard substance impenetrable by sword or spear, and against which leaden bullets from a musket are flattened. In the year 1748, a rhinoceros was brought to Paris, from the kingdom of Ava, of which some account is given by Father Le Compte. He was of a pacific disposition, and fed on vegetables, manifesting great delight in eating plants of the roughest kind, and branches of trees covered with strong prickles, which, even when they drew blood, seemed to excite a pleasing sensation, similar to the excitement of mustard or pepper to the palate of other animals. Three animals of this kind have been brought into England, and purchased for exhibition at Exeter 'Change. One, in 1790, was presented to Mr. Dundas; it was from Lakanaor, in the East Indies. Not being inclined to keep this animal, his possessor gave him to a person who afterwards sold him to Mr. Pidcock for 700*l*. He was neither indocile nor ferocious, but would obey orders, by showing himself to the visitors, and performing such motions as his keeper desired. He required for his daily support about twenty-eight pounds of clover, and the same weight of ship biscuit, and a large supply of green vegetables; his upper lip, which was large and pliant, was used by him to seize and convey

food to his mouth. Ten pails of water were allowed him per day, and sometimes he would require fifteen, with three or four bottles of sweet wine at a time; he was also sometimes indulged with fruit, his fondness for which he would express by making a bleating noise like that of a calf. In October, 1792, this animal, suddenly rising up from the ground, dislocated his right fore-leg; an inflammation followed this accident, and he died about nine months afterwards, at Corsham, near Portsmouth. A rhinoceros was exhibited in 1799, and sold the following year, by Mr. Pidcock, for 1000*l.* to the Emperor of Germany's agent; but after being in the possession of the purchaser about two months, it died in a stable yard in Drury Lane. Another was brought to Exeter 'Change, in 1810, which was sold to an innkeeper of Ghent.

There is a second species of the rhinoceros with two horns: in its disposition and habits it does not differ much from that with one, but its covering is less wrinkled. M. Le Vaillant has observed, that when it composes itself to rest, it invariably places itself with its nose in the direction of the wind, that it may scent the enemy on his approach; and they are also frequently seen to look behind them, and on both sides, to be assured of their perfect safety. When irritated, these animals are seen to tear up the ground with their horns, throwing earth and stones over their heads. Mr. Bruce informs us, that "besides the trees that are capable of most resistance, there are in the vast forests inhabited by these animals, trees of a softer consistence, with succulent branches. For the purpose of gaining the highest branches of these, the upper lip of the rhinoceros is capable of being lengthened out, so as to increase his power of laying hold with it, in the same manner as the elephant does with his trunk. With this lip, and the assistance of his tongue, he pulls down the upper branches which have most leaves, and these he devours first. Having stripped the tree of its branches, he does not immediately abandon it; but placing his snout as low in the trunk as his horns will enter, he rips up the body of the tree, and reduces it to thin pieces like laths: these he by degrees masticates, after twisting about in his capacious mouth, till they become sufficiently broken down and mollified."

According to Mr. Bruce, his pace is nearly equal to that of the horse, notwithstanding the great weight and ap-

parent unwieldiness of his body. By activity and cunning he often eludes his pursuers, as he forces his way through the most entangled thickets; and as he flies from wood to wood, the dead or dry trees are broken down with the utmost violence, and slender trees are forcibly bent down by the weight of his body, and in rebounding suddenly, frequently destroy those who incautiously approach, breaking the bones of the horse and his rider. These animals, frequenting marshy grounds, are exceedingly tormented by a fly commonly found in those situations.

We may form some idea of the vast strength of the rhinoceros, from the account of the hunting of these animals, by Mr. Bruce. "We were on horseback," says this gentleman, "by dawn of day, in search of the rhinoceros; and after having searched about an hour in the very thickest part of the wood, one of them rushed out with great violence, and crossed the plain towards a wood of canes, at the distance of about two miles. But though he ran, or rather trotted, with surprising speed, considering his bulk, he was in a short time transfixed with thirty or forty javelins. This attack so confounded him, that he left his purpose of going to the wood, and ran into a deep hole, or ravine, without outlet, breaking about a dozen of the javelins as he entered. Here we thought he was caught as in a trap, for he had scarcely room to turn; and a servant, who had a gun, standing directly over him, fired at his head, and the animal fell immediately, to all appearance dead. All those on foot now jumped in with their knives to cut him up; but they had scarcely begun, when the animal recovered so far as to rise on his knees: happy then was the men who escaped first; and had not one of the Agageers, who was himself engaged in the ravine, cut the sinew of the hind leg as he was retreating, there would have been a very sorrowful account of the foot hunters of that day." It is a remarkable fact, that the cavity of the skull of one of these animals has not more than half the capacity of the human skull, which generally holds two quart measures of brain, that of the rhinoceros being rarely more than sufficient to hold one. The dried blood of this animal is highly valued as a medicine by the Hottentots, and even by the Cape of Good Hope colonists. Its flesh is eatable but sinewy.

The ELEPHANT.

THE largest elephants are from ten to eleven feet in height; some even exceed this, but the average is eight or nine feet. They are fifty or sixty years before they arrive at their full growth, and their natural life is about one hundred and twenty years. Their price increases with their merit during a course of education. Some, for their extraordinary qualities, become in a manner invaluable; when these are purchased, no compensation induces a wealthy owner to part with them.

In India, the Mogul princes allow five men and a boy to take care of each elephant: the chief of them, called the Mahawut, rides upon his neck to guide him: another sits upon his rump, and assists in battle; the rest supply him with food and water, and perform other necessary services. Elephants bred to war, and well disciplined, will stand firm against a volley of musquetry, and never give way, unless severely wounded. One of these animals has been seen with upwards of thirty bullets in the fleshy parts of his body, perfectly recovered from his wounds. All are not equally docile; and when an enraged elephant retreats from battle, nothing can withstand his fury: the driver having no longer a command, friends and foes are involved in undistinguished ruin.

The elephants in the army of Antiochus were provoked to fight, by showing them the blood of grapes and mulberries. The history of the Maccabees informs us, that "to every elephant they appointed a thousand men, armed with coats of mail, and five hundred horsemen of the best; these were ready at every occasion: wherever the beast was, and whithersoever he went, they went also; and upon the elephants were strong towers of wood, filled with armed men, besides the Indian that ruled them." Elephants, in peace and war, know their duty, and are more obedient to the word of command than many rational beings. It is said they can travel, on an emergency, two hundred miles in forty-eight hours, but will hold out for a month, at the rate of forty or fifty miles a day, with cheerfulness and alacrity. "I performed," says Forbes, "many long journeys with an elephant; nothing could exceed the sagacity, docility, and affection, of the noble quadruped. If I stopped to enjoy a prospect, he remained immovable until my sketch was finished. If I wished for

ripe mangoes growing out of the common reach, he selected the most fruitful branch, and breaking it off with his trunk, offered it to the driver, for the company in the houdah, accepting of any part given to himself with a respectful salam, by raising his trunk three times above his head, in the manner of the oriental obeisance, and as often did he express his thanks by a murmuring noise. When a bough obstructed the houdah, he twisted his trunk round it, and though of considerable magnitude broke it off with ease, and often gathered a leafy branch either to keep off the flies, or as a fan to agitate the air around him, by waving it with his trunk; he generally paid a visit at the tent door, during breakfast, to procure sugarcandy or fruit, and be cheered by the encomiums and carresses he deservedly met with: no spaniel could be more innocently playful, nor fonder of those who noticed him, than this docile animal, who on particular occasions appeared conscious of his exaltation above the brute creation." However surprising may be the docility of the elephant, when tamed, its sagacity, even in a savage state, is a subject of still greater wonder, as is evidenced by the following narrative, extracted from Lichtenstein's Travels in Southern Africa. "Two individuals, named Miller and Prince, being engaged in the Caffre territory, where these animals abound, in an elephant hunt, discovered the footsteps of a very large elephant, and soon found the animal himself on the declivity of a naked and widely outstretched hill. It is a rule, when an elephant is thus found, to endeavour to get above him on the hill, to the end that, in case of necessity, the hunter may fly to the summit, where the animal, on account of the unwieldiness of its body, cannot follow him fast; this precaution was neglected by Prince, who shot too soon, while they were yet at too great a distance, and the elephant on higher ground than himself and his companion. The wounded animal rushed down towards them, while they endeavoured to push their horses on, and gain the brow of the hill. Being able, on favourable ground, to run as fast as a horse, the enraged animal soon came up with them, and struck with his tusk at Miller's thigh, he being the nearest to him. Miller now considered his fate as inevitable, as he endeavoured in vain to set his almost exhausted horse into a gallop, and saw the elephant, after giving a violent snort, raise his powerful trunk above his head. It was not, however, on himself, but on his companion, that

the stroke fell : and in an instant he saw him snatched from his horse and thrown up into the air. Scarcely in his senses, he continued his flight, and only in some degree recovered himself, on finding Prince's horse running by his side without a rider ; then looking back, he saw his unfortunate friend on the ground, and the elephant stamping upon him with the utmost fury. He was now convinced, not without the greatest astonishment, that the sagacious animal had distinguished which of the two it was who wounded him, and wreaked his whole vengeance on him alone. Miller, on this, went in search of the rest of the party, that they might collect the mangled remains of their companion, and bury them ; but they were soon put to flight by the elephant rushing again from a neighbouring thicket, to vent his wrath once more on the corpse, already so dreadfully mangled. While he was busied in doing this, however, he was attacked by the collected hunters, and sacrificed to the manes of his unfortunate victim."

The contrivances for taking elephants are various ; but the most curious are those employed by the natives of Ceylon, where the finest race of these animals is found. They sometimes surround the woods in bands, and drive, with lighted torches, and amid the clamour of trumpets, discharge of fire arms, and noises of every description, the elephants which inhabit them, till they are at length entrapped into a particular spot surrounded with palisades, so as to prevent all escape. At other times a kind of decoy, or female elephant is sent out, in order to induce some of the males to pursue her, who are by that means secured. When a wild elephant is taken, it still remains to be reduced to a quiet state, and to be tamed. This is effected by throwing ropes round the legs and body, which are well secured ; and two tame elephants are placed one on each side. The captive animal finds himself gradually so fatigued by his ineffectual struggles, and so much soothed by the caresses occasionally given by the trunks of the tame elephants, by food from time to time presented to him, and the water with which he is refreshed by its being poured over him, that, in the space of a few days, unless more than usually untractable in his nature, he becomes completely tame, and is placed with the rest of the domesticated troop.

"To day," says Maria Graham, in her *Sketches of Bombay, &c.* "for the first time I rode upon an elephant : his

motions are by no means unpleasant, and they are quick enough to keep a horse at a round trot to accompany with him. The animal we rode is eleven feet high; his forehead and ears are beautifully mottled; his tusks are very thick, and sawed off to a convenient length for him to kneel, whilst his riders mount. On his back an enormous pad is placed, tightly girt with chains and cotton rope; upon this is placed the howdah, a kind of box divided into two parts; the front containing a seat large enough for two or three persons, and the back for a servant who bears an umbrella. The driver sits astride on the animal's neck, and with one foot behind each ear, guides him as he pleases. On our return we saw him fed: as soon as the houdah is taken off, he is led to the water, where he washes and drinks; he is then fastened by the heels to a peg in his stable, where he lies down to sleep for a few hours in the night only. His food is rice, grass, leaves, and young branches of trees; but he is most fond of bread and fruit, especially the plantain." It is well for the elephant, that he is too unwieldy to be trained for the course, as he thus escapes much of that experimental and refined cruelty practised upon another noble animal.

In Delhi, an elephant, passing along the street, put his trunk into a tailor's shop, where several persons were at work. One of them pricked the end of the trunk with his needle. Without showing immediate resentment, as might have been expected, the animal passed on, but at the next dirty pond of water filled his trunk, and returning to the shop, overwhelmed the whole family of operators as they sat at work. Major Denham, in his *Travels in Africa*, relates numerous anecdotes of the elephant. "Maramy," says this author, "came galloping up to inform me that he had found three very large elephants grazing to the south-east, close to the water. When we came within a few hundred yards of them, all the persons on foot, and my servant on a mule, were ordered to halt, while four of us who were mounted rode up to these stupendous animals.

"The Sheikh's people were greatly alarmed, and began to make a violent outcry. The elephants seemed at first to treat our approach with contempt, yet after a little they moved off, erecting their ears, which had before hung flat on their shoulders, and giving a roar that shook the ground under us. One was an immense fellow, I should suppose sixteen feet high; the other two were females, and moved

away rather quickly, while the male kept in the rear, as if to guard their retreat. We wheeled swiftly round him, and Maramy casting a spear at him, which struck him just under the tail, and seemed to give him about as much pain as when we prick our finger with a pin, the huge beast threw up his proboscis in the air with a loud roar, and from it cast such a volume of sand that, unprepared as I was for this event, nearly blinded me. The elephant rarely, if ever, attacks, and it is only when irritated that he is dangerous; but he will sometimes run upon a man and horse, after choking them with dust, and destroy them in an instant.

“As we had cut him off from following his companions, he took the direction toward the place where we had left the mule and the footman. The people fled in all directions, and my man, Columbus (the mule not being inclined to increase its pace), was so alarmed, that he did not get the better of it for the whole day. We pressed the elephant now very close, riding before, behind, and on each side of him; and his look sometimes, as he turned his head, had the effect of checking instantly the speed of my horse: his pace never exceeded a clumsy rolling walk, but was sufficient to keep our horses at a short gallop. I gave him a ball from each barrel of my gun, at about fifty yards distance, and the second, which struck his ear, seemed to give him a moment's uneasiness only; but the first, which struck him on the body, failed in making the least impression. After giving him another spear, which flew off his tough hide without exciting the least sensation, we left him to his fate.

“News was soon brought us that eight elephants were at no great distance, and coming towards us, it was thought prudent to chase them away, and we all mounted for that purpose. They appeared unwilling to go, and did not even turn their backs until we were quite close, and had thrown several spears at them: the flashes from the pan of the gun, however, appeared to alarm them more than any thing; they retreated very majestically, first throwing out, as before, a quantity of sand. A number of birds, here called tuda, were perched on the backs of the elephants. These resemble a thrush in size and note, and were represented to me as being extremely useful to the elephant, in picking off the vermin from those parts which it is not in his power to reach.

“On another morning I went to the eastward, in order,

if possible, to get a sight of a herd of upwards of one hundred and fifty elephants, which some of the Arabs had seen the day before, while the camels were feeding. I was not disappointed: I found them about six miles from the town, in the grounds annually overflowed by the waters of the lake, where the coarse grass is twice as high as a man; they seemed to cover the face of the country, and I should think exceeded the number I had expected to see. When the waters flow over these, their pasturages, they are forced by hunger to approach the towns, and spread devastation throughout their march; whole plantations, the hopes of the inhabitants for the next year, are sometimes destroyed in a single night."

The Burmese people make the elephant an object of superstitious reverence. The white elephant of Ava and Siam, so pompously alluded to in the Burmese state papers, has his residence contiguous to the royal palace, with which it is connected by a long, open gallery. At the further end of this gallery, a lofty curtain of black velvet, richly embossed with gold, conceals the animal from the eyes of the vulgar. Before this curtain, the presents intended to be offered to him, consisting of gold and silver, muslins, broad cloths, otta of roses, rose-water, benares brocades, tea, &c. are displayed on carpets. His dwelling is a lofty hall, richly gilt from top to bottom, both in and outside, and supported by sixty-four pillars, thirty-six of which are richly gilt. His two fore-feet are fastened by a thick silver chain to one of these pillars. His bedding consists of a thick straw mattress, covered with the finest blue cloth, over which is spread another, of softer materials, covered with crimson silk. He has a regular household, consisting of a chief minister, a secretary of state, an inferior secretary, an obtainer of intelligence, and other inferior ministers. Besides these, he has officers who transact the business of several estates which he possesses in various parts of the country, and an establishment of a thousand men, including guards, servants, and other attendants. His trappings are of extreme magnificence, being all of gold, and the richest gold cloth, thickly studded with large diamonds, pearls, sapphires, rubies, and other precious stones. The vessels out of which he eats and drinks are likewise of gold, inlaid with precious stones. The natives bow down before him with a species of religious homage. These honours are paid to the white elephant, on account of the belief, that it

has in this form attained the last stage through which a soul passes previous to entering the Neibaun, or paradise of the Burmese.

"When I was in England, in the year 1771," says Mr. Lindley Murray, "I went to see the elephants which were kept at the Queen's Stables, Buckingham House. Whilst I was gratifying myself with observing the huge creatures, and their various actions and peculiarities, I took occasion to withdraw from one of them a part of the hay which he was collecting on the floor with his proboscis. I did this with my cane, and watched the animal very narrowly to prevent a stroke from him, which I had reason to expect. The keeper said that I had greatly displeased the elephant, and that he would never forget the injury. I thought but little of this admonition at the time; but about six weeks afterwards, when I accompanied some other persons on a visit to the elephants, I found that, though probably several hundred people had been there since my preceding visit, the animal soon recognized me. I did not attempt to molest or teize him at all; and I had no conception of any concealed resentment. On a sudden, however, when I was supposed to be within the reach of his proboscis, he threw it towards me with such violence, that if it had struck me I should probably have been killed, or have received some material injury. Happily for me, I perceived his intention, and being very active, sprung out of his reach. To every other person present he was conciliating and good tempered; and his enmity to me arose, as the keeper declared, solely from the circumstance of the little affront which I had formerly put upon him. This incident made some impression upon me, and perhaps contributed to subdue a curiosity which could not be gratified but at the expense of the feelings of others."

These animals have been called "half-reasoning," and there is a method in their proceedings, as if guided by rational motives: marching, generally in troops, the oldest take the lead; the young and the feeble are placed in the middle, and the females with the young ones firmly embraced in their trunks; and the less robust of the males bring up the rear. This order they carefully observe in dangerous marches. When they come to a river, the largest individual passes over first, and on landing, carefully examines whether the ground be solid and firm: if it be so, he gives a signal to his companions, by a motion

with his trunk, on which they follow over in succession; the young locked fast together by their trunks, and the remainder of the old ones with the females come over last.

M. Phillipe relates that, being at the Indian city of Goa, and passing by a large open place near the river, where preparation was making for building a large ship, he observed some men tie the ends of several heavy beams of wood together with a rope; this rope was handed to an elephant, who, immediately twisting it about his proboscis, and without any further assistance or instruction, drew it to the place where the ship was building. Several elephants were employed in this undertaking, and some of them drew beams so large, that twenty men would scarcely have been able to move them from the ground. But what was yet more surprising, these labourers, when they came to a beam laying across their way, would always carefully elevate the beam they were carrying, so that it should slide over the other.

A female elephant, rendered furious by the wounds she had received at the battle of Hambour, ran about the field making the most hideous outcries; in her progress she came to a wounded soldier, unable, on account of his wounds, to move out of the way. When the elephant approached, she seemed afraid of trampling upon him, took him up with her trunk, and gently laid him on one side, out of her way. Though sudden and fierce in revenging an injury, yet they never wantonly injure those who have given them no offence.

M. le Baron de Lauriston, in one of the late wars in the East, was witness to a noble instance of generous sensibility in an elephant. At a time when the natives were suffering from a fatal epidemic disease, this gentleman's affairs obliged him to visit Laknaor: the principal road to the palace-gate was covered with the sick and dying, extended on the ground. The time had arrived when the Nabob must pass, and it appeared impossible for his elephant to proceed on the road without crushing to death many of those miserable wretches; and it was below the dignity of this august prince to stop till the way could be cleared. The elephant, however, without order or command, carefully moved some, and stepped over the rest, so that not a single individual was injured. This vainglorious potentate and his slaves were insensible to the cries of nature; but the more noble beast obeyed the calls of humanity.

Dr. Darwin mentions an instance of amiable and intelligent conduct in the elephant, related to him by one in whose veracity he could confide. "The baggage of our armies in the eastern settlements are carried by elephants, each under the management of a native Indian, who, with his wife, go into the woods to collect leaves and branches of trees for the animal's support; in the mean time the elephant is left fastened to a long chain, which has one end fixed in the ground: on these occasions a little child is frequently left with him, and this intelligent animal carefully attends to it; and when it would run beyond the limit of his chain, carefully draws it into the centre, caresses and takes care of it."

Many Frenchmen, during the last Indian warfare, had an opportunity of observing one of the elephants that had been severely wounded in an engagement by a cannon ball. They relate, that after having been two or three times conducted to the hospital, where he voluntarily laid himself quietly down before the surgeons, to have his wound dressed, he afterwards regularly attended at stated periods without any one to accompany him, allowing all the necessary operations to be performed. Though what he suffered caused him to utter the most distressing groans, yet he never manifested any other sentiment but gratitude towards the person who was employed in effecting his cure. In the same engagement, a young elephant became almost frantic from a wound it had received on the head; when any person approached it run away from them, so that it seemed hopeless to attempt dressing the wound. At length its governor thought upon a plan which succeeded: by signs and words he made its mother understand what was wanted, and she immediately seized hold of the young one, and held it fast with her trunk, though it was all the while in agony; and every day she attended and performed the same service till the cure was perfected.

In the Philosophical Transactions, a story is told of an elephant having formed such an attachment to a very young child, that he was never happy but when it was near him. The nurse therefore used frequently to take it in its cradle, and place it between the elephant's feet; and it became so accustomed to this indulgence, that it refused to eat when its little favourite was not present. When the child slept, he would drive off the flies with his pro-

boscis; and when it cried, he would move the cradle backwards and forwards, and rock it to sleep again.

It is related by M. Navarette, that an elephant driver at Macassar had a cocoa-nut given to him, which in the wantonness of folly or cruelty, he broke against the head of the elephant, giving the animal two severe blows, which it did not forget; for in a few days afterwards, passing along the street where cocoa-nuts were exposed for sale, it took one of them and beat it against the driver's head so violently, that he died on the spot. "This comes," says this author, "of jesting with elephants."

A female elephant belonging to a gentleman at Calcutta, being ordered from the upper country to Chotygone, by chance broke loose from her keeper, and was lost in the woods. Nothing that the unfortunate man could say was attended to; it was taken for granted, that he had sold the animal, and his family were therefore sold for slaves, and himself condemned to work on the roads. About twelve years afterwards, the man was ordered up into the country, to join a company of elephant catchers; a number of elephants being driven into an enclosure, the keeper imagined he saw his long-lost animal among them. He was determined to go up to it; nor could the strongest representation of the great danger dissuade him from his purpose. When he approached, she knew him, gave him three salutes, by waving her trunk in the air, and knelt down to receive him on her back. She afterwards assisted in securing the other elephants, and likewise brought with her three young ones, which she had during her absence brought forth. The keeper recovered his character; and as a recompense for his sufferings and intrepidity, had an annuity settled on him for life. The elephant was afterwards in the possession of Warren Hastings.

A centinel, belonging to the menagerie at Paris, was very officious in requesting the visitors not to give the animal any thing to eat. This was particularly offensive to a female elephant, who took notice of his arresting the hands of those who were designing presents for her. One day, when much company attended, one of them offered the elephant a piece of bread; the centinel was proceeding to countermand this donation, but the moment he began to open his mouth, the elephant raising her proboscis, threw a quantity of water in his face. A general laugh succeeded, and the centinel calmly wiped his face:

he, however, soon had another occasion to repeat his admonition to the spectators ; but no sooner was it uttered, than the offended animal contrived to seize hold of his musket, and twirling it round with her proboscis, and treading it under her feet, did not restore it to its owner, till it was twisted nearly into the form of a cork-screw.

In 1786 a couple of elephants, male and female, were brought from Ceylon, and presented to the stadtholder. After the French had subdued Holland, they had been separated, in order to be conveyed to Paris, where a spacious hall had been prepared for them in the place now called le Jardin des Plantes. The room was divided by a moveable partition, and the surrounding enclosure was defended by very strong wooden rails. The morning after their arrival, they were conducted to their habitation. The male was brought first, and entered the apartment with suspicion, reconnoitred the place, and then examined each bar separately, trying its solidity by shaking it. When he arrived at the portcullis, which divided the apartment into two, he observed that it was fastened only by a perpendicular bar of iron. This he raised with his proboscis ; he then pushed up the door, and entered the second apartment, where he received his breakfast. These two animals had been parted (but with the utmost difficulty), for the convenience of carriage, and had not seen each other for several months ; and the joy they experienced on meeting again, after so long a separation, cannot be described. They immediately rushed toward each other, and their cries of joy were so animated and loud, as to shake the whole building. They breathed also through their nostrils with great violence and impetuosity. The female very naturally and forcibly expressed her joy by violently flapping her ears, with astonishing quickness, and drawing her proboscis over the body of the male with the utmost tenderness. She particularly applied it to his ear, where she kept it a long time ; and after having drawn it over his whole body, often moved it affectionately towards her own mouth. The male did the same over the body of the female, and expressed his feelings by tears, which fell in abundance from his eyes. They continued to occupy the same apartment, and their mutual tenderness and affection was viewed with admiration by all who visited them.

These two animals, besides a large quantity of bread, carrots, and potatoes, eat every day a hundred weight of

hay, and drank thirty pails of water. When first brought to Holland, they were conveyed on board a vessel up the river Waal, to Nimeguen, and afterwards driven on foot to Loo. At Arnheim, they refused to pass the bridge, but having fasted many hours, food was placed for them on the opposite side; yet even this for some time failed to persuade them to venture, and when at last they began to advance, it was with great caution, trying each separate board to prove its strength and firmness. During their stay in Holland, they were exceedingly tame, and allowed to walk about, but lost much of their gentleness during their confinement in different places, and in the cages in which they were conveyed over the country, and in Paris became in some degree ferocious. They were subjected to many experiments, and had given to them the names of Margaret and Hans. In order to try the effect of music upon them, a band was placed in a gallery near their place of confinement, which, after an interval of perfect silence, and when they had favourite food given them to eat, began to play a lively tune; on which they instantly ceased eating, and became fixed in mute attention. Bold and wildly varied music roused in them corresponding emotions, and a restlessness indicative of violent excitement: when the bassoon played soft and soothing airs, they were apparently reduced to gentleness, and almost to languishment. Gay and exhilarating strains on the contrary produced, especially in Margaret, strong indications of an inclination to playfulness and gaiety. This experiment seems to confirm the accounts of the ancients, respecting the power of music upon animals. We are informed by Sentonius, that Domitian had a troop of elephants taught to dance to the sound of music, and that one of them, which had been beaten for not being perfect in his lesson, was afterwards seen in a meadow practising it by himself.

The male elephant in the menagerie at Exeter 'Change, in 1793, was taught to perform a great variety of tricks to amuse the spectators. If a pot of ale was brought, he sucked up the liquor, and from his proboscis conveyed it into his mouth: he would take up a watch, or the smallest piece of money from the ground, and put it into the owner's pocket; would receive from any person a piece of money, and give to an attendant boy to go and purchase bread, fruit, or vegetables, which he would immediately eat. If ordered by his keeper, he would

immediately unbolt the door of his den, or untie a strong cord that was knotted and fastened to the door. He would sweep the den, in imitation of the keeper, and performed with ease every thing attempted to be taught to him.

In August, 1798, Mr. Pidcock being with a collection of animals at Lancaster, a number of drunken sailors attacked the caravans in the night, and began to break them to pieces. The keeper, roused by the noise, went out and reprimanded them for their conduct; but instead of desisting, they became more outrageous; on which the elephant, hearing the voice of his keeper, in apparent distress, or rage from maltreatment, immediately burst open his den, and came out to his assistance, to the no small amazement of the assailants, who fled precipitately in all directions. This animal died in 1803.

A female elephant was brought to England by the Rockingham East Indiaman, in 1796, and placed in Exeter Change. At the time of her arrival, she was no larger than a large hog, but afterwards attained her full size. Her head was larger than that of the male, and her limbs more fleshy. By some secret signal given to her by her keeper, she would beat with her trunk against the rails of her den as many times as there were persons in the room; and in a similar manner would beat the hour, after a watch had been held up to one of her eyes. She would take off the keeper's hat, and put it on again as often as she was commanded. She would lie down, and rise; and open and shut the door at the word of command. If a shilling were placed on high beyond her reach, she would extend her proboscis towards it, and by a strong blast of wind blow it from the place where it was laid, and take it up from the ground.

The noble male elephant brought from Bengal in 1809, continued long the pride of Mr. Cross's menagerie, and the wonder of all its visitors. He was several times introduced in the dramatic entertainments at Covent-Garden, on which occasions he was found quite tractable, and performed his part with merited applause. The keeper usually sleeps at some distance above the animals, and leaves his wardrobe in a room immediately contiguous. One night, near the close of the year 1819, the elephant, by resting his knees against the rails of his den, contrived to pull over the box containing this wardrobe, and broke it open. After taking out the different articles, he

swallowed various pantaloons, waistcoats, neckcloths, and other light matters; this strange and unusual diet did not, however, produce any apparent inconvenience, but the experiment was never allowed to be repeated.

The rest taken by this elephant was about four hours in the twenty-four, during which he slept well, but would quickly rise up on the least alarm. His daily food consisted of two trusses of hay, ten or twelve bunches of carrots, or some equivalent, a truss of straw, given as a bed, but generally eaten, and from thirty to five-and-thirty gallons of water. The name given to this animal was Chuny. Numerous anecdotes are related of his sagacity. Mr. Kean the tragedian often visited him, and attracted much notice from him previous to his trip to America; on his return, he was instantly recognized by Chuny, who put forth his proboscis, and fondled over him. Mr. Kean sat down within his reach, and gave him two or three loaves of bread, which were rapidly devoured, and received with proper acknowledgments.

Four or five years ago, the animal's hide having become rigid and sore, the keeper daily rubbed his back with marrow. Cocoa-nut oil is used in India for the same purpose. This operation was very grateful to the patient, and he would ever afterwards point out any place where he might have received any slight injury, in hopes of enjoying the advantage of this application. The keeper, entering his den in a new dress, was mistaken for a stranger, and pushed violently against the wall by Chuny, in evident hazard of his life. A by-stander seized a pitchfork which lay near, and stuck it into the elephant's thigh, diverting his attention, and allowing the keeper to escape; this had the desired effect, but the assailant was ever after noticed by Chuny, and had numerous proofs of his recollection. On several occasions he threw water in the face of the offender.

Mr. Cross had occasion to take Alfred Cops, at that time keeper of the elephants, down with him to a vessel in the river one morning, and being detained longer than they expected, several persons were waiting to see the elephant. At that time Cops was in the habit of going into his den between the wooden bars, with a small cane in his hand, with which he touched the animal, to make him walk round. But he no sooner entered, than the elephant showed symptoms of disobedience, and struck at him. Cops fled to the farthest corner of the den, and

cried out violently. Mr. Cross, hearing his cries, instantly ran to his assistance, and, seizing an iron bar, hurled it against the animal's ear, which gave Cops an opportunity to escape; but, he received several blows as he was making his exit. The elephant's displeasure arose from not having been fed at the usual time, owing to the keeper's absence, who would have lost his life, but for the presence of mind of Mr. Cross.

This noble animal had encreased to a bulk very unusual in this country, and, as was to be expected from its confinement, had become, at certain seasons, ungovernable. Large doses of opening medicines were administered, with a view of cooling its temperament, even to the extent of twenty-four pounds of salts, twenty-four pounds of treacle, six ounces of calomel, one and a half ounce of tartar emetic, six drachms of gamboge, and a bottle of croton oil, in fifty-two hours, without any effect; but on giving him five or six pounds of marrow, the operation of the medicines was made effective, and the animal was rendered more composed and tractable. But the returning paroxysm of his disorder became gradually more violent, till attendance on him was a service of great danger. In the year 1827 the elephant, in a fit of phrenzy, broke down a part of the side of his den, and refusing medicine, however artfully mixed with his food, it became an important subject of consideration to Mr. Cross, in what way he was to be disposed of. The den was of amazing strength, and cost 360*l.*; but even solid oak and hammered iron seemed weak, when opposed to the strength of an animal eleven feet in heighth, and weighing five tons, whose mere weight, in a state of quietness, no ordinary barriers could withstand, but which, in so infuriated a condition, it seemed impossible to restrain. It is a well known fact, that animals in such a state as this elephant was, no longer pay that regard to their keepers, which they do under ordinary circumstances, and this, which is a very dangerous symptom, the elephant had displayed some time. As soon as serious apprehensions were entertained from his excessive and uncontrollable violence, Mr. Cross resolved, as all other means had failed, to have him shot. Had there been a possibility of getting him down (his den being above stairs) alive, the proprietor might have received a thousand pounds for him, and the sacrifice of so considerable a part of his property, was not lightly to be made. It was made, however; and it is but justice to

Mr. Cross to notice, that it seemed not to weigh a moment in his mind, compared to the risk of human life, evidently the consequence of keeping him alive.

The difficulty of destroying an animal of so large a size, and so powerful, was foreseen by the proprietor, and every means was adopted which humanity could suggest, to do the work speedily. Some time ago an elephant at Venice was in the same state, and after killing his keeper, escaped into the market-place, where he was fired at. When he had received about fifty shots, he got into a barrack-yard, where, after amusing himself with tossing about some large pieces of ordnance, he was again repeatedly fired at without effect; a nine pounder was then brought, and the first discharge felled him to the ground. Happily, in this instance, the business was better managed. As the symptoms became alarming, and the heaviest timbers of the den were giving way, Mr. Cross determined to procure some of the Foot Guards from Somerset-house, and put the elephant to death by firing ball. On their arrival the soldiers charged their pieces, and took deliberate aim at the animal's head, but the flesh was so deep, that for a long time the balls did not seem to have any effect. Two gentlemen, Mr. Brookes and Mr. Clift, surgeons, and perfectly acquainted with the anatomy of the animal, were present, and pointed out the most vulnerable parts. The place most aimed at was the blade bone, in the direction of the heart; but the skin was so amazingly thick and hard, that the balls for a long time produced on him apparently no more effect than they would have done on a bale of cotton. The persons engaged for the purpose fired in as quick succession as the balls could be supplied, and one soldier in particular was supposed to have fired about eighty shots. The whole number fired was one hundred and fifty-two, the greater number in the trunk, but some in the head, and one in the eye. The noble animal of India fell twice, and twice sprung up again, during the terrible hailstone shower of balls by which he was lacerated. At last he sunk down slowly and majestically on his haunches, and expired in the posture which is assumed by the elephant when about to be loaded, and which he was wont to assume when ordered. The first indication of pain was, when one hundred balls had been lodged in his body, and that pain seemed to have been produced by a well-aimed ball, which had lodged just under his ear. His eyes instantly appeared like balls of

fire; he shook his head with dreadful fury, and rushed against the front of his den, and broke part of it: and it was every moment expected that the massive pillars, secured with iron plaitings, would have given way. The keepers armed themselves with pikes, and the soldiers continued their firing; and two hours having been spent before a vital part had been touched, it was advised that a piece of ordnance should be procured, to put an end to his lingering torments: but one of the keepers, by piercing a vital part with a harpoon gave the finishing stroke to this tragedy. The blood issued forth in streams, and those who a few minutes before feared to approach, now climbed over him, and examined the bullet holes, which were in every part of his head. The ball which took most effect was one discharged by Mr. Herring, an assistant to Mr. Brookes, an eminent anatomist, which, penetrating under one of his ears, entered the brain, and caused a large effusion of blood.

The only animal in this splendid menagerie that manifested any excitement during the fierce assault was the lion Nero, who lashed his sides, dashed himself against the iron bars of his cage, and evinced the greatest anxiety to come out and join the affray. Every lover of Natural History, and every one acquainted with this menagerie, must lament that Mr. Cross should have been obliged to destroy so noble an animal, and to make so great a pecuniary sacrifice; while all will admire the readiness and decision with which he made up his mind to it.

When the elephant was dead it was left till next day to be dissected, and at eleven o'clock nine active men began to take off its skin. In this operation they were laboriously engaged twelve hours. The hide varied in thickness, in different parts; on the back it was three inches. Doctors Waring, Clark, Spurzheim, and a large company of surgeons and medical gentlemen, attended the dissection, Mr. Cross supplying every facility the place would admit. Mr. Ryals, a gentleman of considerable skill and reputation, was the principal operator, under the direction of Messrs. Brookes and Morgan. The body was first turned by ropes fastened to the fore-legs, and the carcass being raised, the trunk was cut off, and the eyes extracted. An incision was then made down the abdomen, and the abdominal muscles on the uppermost side were removed. The entire contents of the abdomen and pelvis were taken out, and also

the contents of the chest. The heart, which was of enormous size, being nearly two feet long, and eighteen inches broad, was found to have been pierced by a sharp instrument; and several bullets were extracted from the liver. The heart was found immersed in five or six gallons of blood. The flesh, as it was cut off from the bones, was removed by carts; and after it had been all cleared away, the medical gentlemen declared that they never viewed a more beautiful anatomical display. The leg bones were removed at the knee-joint, and, being measured, were found to be four feet in length, from the knee-cap to the back. The thigh bones were then removed, and found to measure three feet two inches in length. The greatest difficulty experienced by the anatomists was in the removal of the hocks, having to cut through an immense thickness, of a substance resembling Indian rubber. - The *acetabulum*, or cavity of the thigh joints, had a very singular appearance; instead of the usual mucilaginous fluid, called *synovia*, the parts were lubricated by a white creamlike fluid. On removing the head, the brain was found to be in a state approaching to putridity. It had been injured by several balls, and a great quantity of blood was found on the ventricles. Great care was taken in the removal of all the parts denominated visceral, more especially the heart, with its immense vessels, the *receptaculum chyli*, the *thoracic duct*, and the whole apparatus of the vital functions. From the skill displayed by Dr. Morgan, in separating the parts, there cannot be a doubt but the preparation would prove highly interesting to physiological students. The professional gentlemen coincided in opinion, that the appearance of the body indicated a state of perfect health. The bones were not of the magnitude which the size of the animal would have led one to expect. The *interarticular cartilage*, between the joint of the upper and lower jaw, presented a singular appearance; it was two inches in thickness, and covered with the same kind of substance as the kneepans. From the *spinus proces* of one *illum* to the other, was four feet. The width from one *acetabulum* to the other, was twenty-nine inches. The length of spine ten feet. The operators proceeded to take off the rib bones, the longest of which was three feet six inches. The head, when severed from the body, measured from the forehead to the top of the trunk, four feet and a half. The following is a correct statement of the admeasurement. Circum

ference round the body, nineteen feet four inches ; length of the body from the forehead to the root insertion of the tail, five feet nine inches and a half ; the girth of the fore leg, three feet eight inches ; the hind leg rather larger. The length of the forehead, taken in a straight line, four feet and a half. The height of the body as it lay, six feet two inches and seven-eighths. Mr. Spurzheim was disappointed in his dissection of the brain, as Mr. Cross could not allow the bones of the head to be injured, and the brain could not be examined without sawing off the top of the skull. The skeleton was sent to a foreign college ; and a tanner gave fifty pounds for the skin, intending to stuff it for exhibition. Two large steaks were cut from the rump, and broiled, of which a surgeon, and many other persons, male and female, eat, declaring it to be quite palatable. Bruce, in his travels, informs us, that the Abyssinian hunters esteem the flesh of the elephant a rarity ; and Vaillant describes the Hottentot mode of cooking the foot of this animal. "A hole is made in the ground, and lined with stones ; this is filled with fuel and heated : the fire withdrawn, and the foot placed in the heated hole, and covered with embers heaped over it, and left to bake for a couple of hours. Nothing can be more exquisitely delicious."

The MANATI or MORSE.

THE Manati, in some of its varieties, is of enormous size ; it is a marine animal, subsisting entirely on sea-weeds and other vegetables. The Magdalene Islands, in the Gulph of St. Lawrence, are regularly visited by vast numbers of these animals, descending from the Arctic regions in the spring time. On their arrival, they are seen dispersed over the rocks, feeding on the weeds. They are peaceful and inoffensive, unless attacked ; but formidable in their vindictive fury when enraged. They are strongly attached to each other, and to their young, and will attempt the rescue of an harpooned companion, at the risk of their own lives.

A sloop, sailing northward to trade with the Esquimaux, was beset by a large company of these animals, who in mere wantonness seemed determined to enter the vessel, and greatly alarmed the crew. At last one, more daring than the rest, got in over the stern, and after sitting some time

examining the company on board, jumped back again among his companions. At the same instant, an unusually large one was looking over the bow of the vessel, and was only prevented from entering by the bow-man's taking up a gun charged with large shot, and discharging it in his mouth. He immediately sunk, and was followed by all his companions. The people then made all haste to reach the ship, fearful lest a second attempt should be made to enter or overturn the vessel.

Captain Cook describes a herd of walruses which he fell in with in the Northern American Seas. "They lie," says this voyager, "in herds of many hundreds, upon the ice, huddling over one another like swine; and roar, or bray, so loud, that in the night, or in foggy weather, they gave us notice of the vicinity of the ice before we could see it. We never found the whole herd asleep, some being always on the watch. These, at the approach of the boat, would wake those next to them; and the alarm being thus gradually communicated, the whole herd would be awaked. But they were seldom in a hurry to get away, till after they had been once fired at; they then would tumble over one another in the utmost confusion. And if we did not, at the first discharge, kill those we fired at, we generally lost them, though mortally wounded. Vast numbers of these animals would follow, and come close up to the boats; but the flash of a musket in the pan, or even the pointing a musket at them, would send them down in an instant. The female will defend her offspring to the last, on the ice or in the water. Nor will the young ones quit the dam, though she be dead; so that, if one be killed, the other is a certain prey."

Cranty, in his history of Greenland, informs us that walruses, playing about in the water, have been observed to draw sea-fowl beneath the surface, and after a little while throw them up into the air. This is supposed to be merely done in play, as they are not known ever to have eaten these animals. Though not reckoned carnivorous, yet they are said sometimes to eat oysters.

The most valuable part of these animals is the ivory of their tusks, weighing frequently twenty or thirty pounds each. The oil extracted from them is also highly valuable, amounting from two to three barrels each. The weight of the animal is from 1500 to 2000 pounds.

A species of the morse, denominated the whale-tailed, is found in the seas approaching Kamschatka. These

live in families, consisting of male and female, and several young ones : they also unite in herds, the old ones going behind, and the young ones before, with some old ones on each side. Their attachment to each other is very extraordinary, and if one be harpooned the whole herd struggle to effect his deliverance. A male, after having used every effort in his power to free his mate, which had been struck close to the land, persisted in his attendance ; and even three days after she had been cut up and carried away, was observed to wait in anxious expectation of her return. When one of them is struck, and dragged along by twenty or thirty men, the poor beast, assisted by its faithful companions, makes every possible resistance : it clings with its feet to the rocks, till it leaves the skin behind, and often dislodges large fragments of the rocks in the struggle. The flesh is coarser than beef, and does not soon putrify ; and the flesh of the young ones resembles veal.

There is a third species of this tribe, called the round tailed manati ; these are observed active in their amusements, jumping a great height above the surface of the water. They chiefly delight in seeking the luxuriant herbage bordering the great rivers of Africa and South America. These are as remarkable for affectionate attachment to their young as the other species, and their habits are nearly the same. When wounded the mother affectionately clasps her young to her breast, forgetting her own sufferings in anxiety for the safety of her offspring. These animals, as might be expected, from their domestic character, are found to be easily tamed. At Nicaragua, the governor kept a round tailed manati in a lake near his house, for six and twenty years. Bread and fragments of victuals were its chief food. It became so tame and familiar, that it might be justly compared to the dolphin, as described by the ancients ; like that animal, it also delighted in music. The domestics gave it the name of Matto ; and to this name it would immediately answer, and come out to be fed. Peter Martyr, who gives this account of it, asserts, that it would sometimes crawl up to the Governor's house, and play with the servants and children : it was even known to have carried persons on its back across the lake. These, and similar accounts, have led many persons to believe that the mermaid and dolphin of the ancients were in reality no other than this species of the manati.

It is questionable respecting the animal seen by Mr.

Stellar, off the coast of America, whether it belonged to the manati or the seal tribe. It is denominated by Mr. Steller, "the Sea Ape Manati," and Mr. Pennant accordingly places it with the manati, in his arrangement.

This animal is described as exceedingly playful, and highly amusing to all who beheld it. Its head was somewhat like that of a dog; its ears sharp and upright; the eyes large; and on its lips it had large whiskers; the body round and conoid, with the thickest part toward the head. It sometimes swam on one side the ship, and sometimes on the other, gazing upon it with apparent wonder and admiration. Twenty or thirty times it would dive under the ship, successively rising first on one side, and then on the other, with its body half above the water. It would sometimes rise with a sea plant in its mouth, which it would throw up and catch as it fell, and play with in a fanciful and whimsical manner.

The SEAL.

THERE are many particulars relating to this tribe of animals which indicate its affinity to the manati, particularly in the shape of the body, and in having fin-like feet. These animals are decidedly amphibious, having their habitations, when out of the water, in caverns or on the shelving rocks washed by the tide.

They are fond of sleeping in the warm sunshine, by the sides of large rivers, or on the sea shore; but are exceedingly watchful, "never," says Mr. Pennant, "sleeping long without moving." At short intervals they raise their heads, anxiously looking about on all sides. Providence, having denied these animals quickness of hearing, has given them this habit of watchfulness for their preservation. They are ill adapted for motion on land, but in a proper depth of water their motions are very rapid. At Sennan, in Cornwall, a seal was seen to pursue a mullet, and it turned about upon it in the same manner that a greyhound will do to a hare. The mullet tried to escape by running into shallow water, and by this means escaped.

Young seals are easily domesticated, and will answer to a name, and follow a person like a dog. Some years ago a person kept a young seal a considerable time, and being near the sea, it was not only supplied with a reservoir of salt water, but was frequently conveyed to the sea, and thrown

into it; on which occasion it would swim after a boat, and seemed desirous of being taken back again

One of these animals was exhibited in London, in 1750, which came out of the water when called, eat out of the hands of his keeper, and performed many extraordinary feats.

At Aberdour, in Fifeshire, on the banks of the Frith of Forth, a farmer, seeking crabs and lobsters among the rocks, found a young seal, and brought it home with him, and offered milk porridge to it, which it greedily devoured. It was fed in this manner till the man's wife, considering the animal unnecessarily burthensome, would not allow it to remain, and it was taken to the sea, and thrown in; it however immediately returned, and would not be driven away. It was again taken and thrown into the sea at a more considerable distance, the men hiding themselves and watching its motions; it was soon observed returning towards the place where they were hid, and conducted once more to the man's house, and was some time afterwards killed for its skin.

Seals are said to delight in thunder-storms; sitting upon the rocks, viewing with apparent pleasure the violence of the contending elements. Among the most extraordinary instances of absurd superstitions may be reckoned that of the Icelanders, whose belief it is, that this tribe of animals derive their original from king Pharaoh and his host, who, when overwhelmed in the Red Sea, were, it is believed, all of them converted into seals.

The seal is importantly useful to the Greenlanders, supplying flesh for their principal support, and oil for various important purposes. Their entrails serve to make windows, and also thread, with which they make their clothing. To be able to pursue and kill seals is the height of the Greenlander's desires, and they are trained from childhood to this active and enterprising life. The season for this pursuit is when the broken ice floats on the surface of the sea, and the spring commences. The peasants, with small boats, are seen busily engaged, at the utmost peril of their lives: constantly exposed to the danger of being crushed to pieces by masses of ice suspended over their little vessels. The animals which they surprise and seize supply abundance of food during these expeditions, and they enrich themselves on their return by the sale of the oil and skins they have collected.

The common seal is found among the rocks, on the coasts of Great Britain, and inhabits all the European seas. It is also found in the arctic circle, in the seas of Asia, and on the shores of Kamtschatka.

The Ursine seal has the same general habits as the other species, living in families; the male is surrounded by from eight to fifty females, and these he guards with the utmost jealousy. The families are kept perfectly distinct, and though they cover the shores they inhabit, yet each knows its relative. The males are affectionate towards their offspring, and very tyrannical towards the females. If any one attempt to seize their young, the male stoutly stands on the defensive, whilst the female carries it off in her mouth. Should the female unfortunately drop the young one, in her haste to carry it off, the male leaves the enemy, and falls upon her with savage ferocity, and beats her head against the stones till she be really, or apparently, dead; but if the enemy succeed in seizing the young one, the male appears exceedingly affected, and sheds tears of sorrow.

Those individuals among them which, from age or impotence, are deserted by the females, become ill-tempered, and quarrelsome, and indolent; but if another encroach on their stations, they are immediately roused to action, and a battle ensues. This is one cause of their disputes and quarrels; but various occasions arise to call into action the contending passions of these very irritable animals. When an attempt is made to seduce a female, a terrible encounter always follows, and the vanquished party has, added to the calamity of being overcome, the hard fate of losing all his females, who immediately attach themselves to the victor. They inflict serious wounds on each other in their engagements, and are observed to recover from wounds of a description which would cause the death of any other animal.

When the Ursine seals lie dispersed on the shore diverting themselves by frolicsome gambols, they low like oxen; having gained the victory over their antagonist, they make a chirping noise like a cricket; after a defeat, or on being wounded, they mew like a cat. They smooth their hair with their hind feet when they come out of the water: they salute the female by kissing her lips. When they prepare for sleep, they sometimes roll themselves up like a ball; and to lie in the sunshine on their backs with their hind legs held up, is a favourite position.

Their cubs are very frolicsome, and have sham battles, on which occasions the male parent stands beside the combatants; parts, caresses, and kisses them, generally showing a decided preference to that which gains the mastery.

Vast numbers of these animals are found on Behring's Island, especially on that part of the coast which lies toward Kamtschatka; in the beginning of June, these retire southward, for the purpose of bearing and nursing their young, which, under the tuition of the parents, are sufficiently robust, and have acquired the necessary experience, to provide support for themselves in the course of six months.

In the seas surrounding New Zealand, in the Falkland Islands, and in the Island of Juan Fernandez, there are found a species of these animals called bottle-nosed. These are remarkable for excess of fat and a sluggish disposition; they therefore fall an easy prey to their pursuers. One day a sailor was employed in skinning a young one he had just killed, when its mother approaching unawares, bit him so dreadfully, that he died on the day following. These animals remain in the sea all the summer months, but in winter their residence is on the land, where they subsist on grass and succulent plants bordering the rivers. They go in herds, and each herd seems under the direction of a large and strong individual, called a bashaw by the sailors. These bashaws appropriate a large number of females to themselves, and arrive at this envied superiority by numerous bloody contests, in which they gain successive victories, and are generally covered with deep scars from the wounds they receive. Sentinels are invariably found placed in convenient stations to alarm the herd on the approach of danger, which they do by a loud noise heard at a considerable distance.

The Leontine Seal, found among rocks on the coasts of Kamtschatka, are distinguished by a very loud roar, which in foggy weather often proves useful to sailors, intimating the vicinity of the shore. On the first hostile approach of their assailants, they are suddenly seized with fear and horror; but when they find escape impossible, they fight with great fierceness, and a most extraordinary outcry. Their contentions for the female are frequent, and very violent. Steller relates that, when on Behring's Island, he lived in a hovel surrounded by these animals, and that they soon became familiar, and not alarmed on account

of his presence, and even allowed him to play with their young. He also witnessed their battles, which were fierce and of long continuance; once he witnessed a duel between two males, which lasted three days, and in which one of them received above a hundred wounds. The males become very fat in the summer, and are very indolent and sleepy. Their voice is like the bellowing of the bull, and the young ones bleat like sheep.

The Dog TRIBE.

No animal which has been tamed and domesticated by man has received so much attention, or been more deservedly praised for his services, freely bestowed; his docility, his affectionate attachment, his faithfulness. In his readiness to serve those who have been kind to him, he seems ever more inclined to forget injuries than benefits, for he will strongly express his grateful acknowledgment of a favour, even from one by whom he has been previously treated with harshness and severity.

The usefulness of the dog, and his ingenuity, are well exemplified in his care in directing the steps of the blind; in guiding them through the streets of towns, and bringing them to the place where they are to receive the charitable donations of passengers. When the day closes, the dog conducts his master back in safety to his habitation, and receives a scanty pittance for his services. Mr. Ray informs us of an instance of this description, which came under his own observation. This dog was not only the blind man's guide, but his protector from danger. He exactly remembered all the houses where donations were received twice or thrice a week, and there he always brought the unfortunate suppliant at the proper time. He lay down to rest while the man preferred his petition, but rose promptly, and proceeded as soon as a contribution or a refusal was given. "I observed," says this author, "not without pleasure and surprise, that when a half-penny was thrown from a window, such was the sagacity and the attention of this dog, that he went about in quest of it, took it from the ground with his mouth, and put it in the old man's hat. Even when bread was thrown, the animal would not taste it, unless he received it from the hand of his master."

Common experience will inform every one of the trac-

tability, and in some degree, rationality, of the dog; a person at Birmingham had been to visit a sick relation, accompanied by his dog, and anxious to be frequently informed of the progress of the disorder, wrote a letter after his return home, and tying it about the dog's neck, endeavoured to make him understand his wish that he should carry it to the house of the sick person; on which the animal immediately went towards the door of the house, which being opened, he proceeded straight forward on his errand, delivered the letter, and brought back the answer; and during the continuance of the disorder, performed the same service every morning with perfect regularity and dispatch.

A person residing at a turnpike house, at some distance from the town of Stratford on Avon, used constantly to send his dog to the town with a written account of groceries and other articles from the shop where he had himself applied, accompanied by this favourite animal, and always could depend on his care and attention in bringing the articles safe home.

It has been found no very difficult task to teach dogs not only to hunt and to dance, but to perform a great variety of actions, evincing a capacity to imitate; and to understand what is said to them with extraordinary quickness. Plutarch informs us, that at the theatre of Marcellus a dog was exhibited before the Emperor Vespasian, which had been successfully taught to perform every kind of dance then in use. The same dog afterwards feigned illness and death, and re-animation so naturally, that all beholders were astonished: first, his motions, indicating sudden pangs and extreme pain, strongly called forth a sentiment of pity for his sufferings; he then fell into a mortal agony and to all appearance, died, and was for some time carried about and exhibited, apparently in a lifeless state: but at the time appointed, and upon some signal understood by him, he slowly opened his eyes, seemed gradually awaking from a profound sleep, and jumping up scampered about, as if exulting in once more rising to light, joy, and animation.

It is generally allowed that many animals possess an acuteness of perception, in some of the senses much superior to what human beings enjoy. This opinion seems confirmed by the trick commonly exhibited, of throwing a handful of halfpence into the corner of a room, and demanding of a dog, trained for the purpose, to fetch

out of the promiscuous heap one which has been previously examined and marked, and separately held in his master's hand: the presumption is, that the animal distinguishes the peculiar odour arising from the body of his master, as the same animal follows the scent of the hare or the fox a considerable time after they have passed over the ground. Sometimes the infliction of severe punishment is used, to fix in the memory of animals such circumstances as are connected with the performances they are to be taught; but how much more reasonable it is to imitate the benevolence of Providence, who, with never-failing effect, leads all animated beings to the performance of the most necessary actions of eating and drinking, and others, technically called the *non-naturals*, by sensations of pleasure. So it has been found that the dog and other animals are made to point out different cards, by many repeated trials, first fixing in their memories one at a time, by constantly giving his food upon a card of a particular kind; after which he is sent to seek it out from the pack, as a condition of receiving food. In this manner he is taught by degrees to distinguish all the cards from each other, just as he learns to distinguish the door of his master's residence from every other door in the same uniform pile of buildings, in which all the doors being made after the same form, are not to be distinguished from each other without careful examination.

Some time ago a company of dancing dogs exhibited strong powers of imitation in various performances, at Sadler's Wells. Drilled to mimic the actions of a band of soldiers, these canine actors performed the various manœuvres of attacking and storming a fortress; after which, and various other exploits, one of them was forcibly brought on the stage, in the character of a deserter, and was to all appearance shot dead, and his body carried off to be buried.

A dog belonging to one of the noble family of Medici always attended his master's table, changed his plate for him, and carried his wine; and when this nobleman mounted his horse the dog held the stirrup with his teeth.

It may be presumed that all animals possessing a voice, and the faculty of imitation, may be taught to form articulate words; and we are informed by the learned Leibnitz, that a dog was brought to him who could speak about thirty words in a very distinct manner. This dog was of a middle size, and belonged to a Saxon peasant.

whose son, a little boy, had spared neither time nor pains in teaching his pupil: he could call for tea, coffee, or chocolate. Leibnitz himself declares, that he heard him speak; and the academicians add, that unless they had received the testimony of so great a man, they would not have ventured to insert the account in their Encyclopedia.

A gentleman residing at Gosport regularly visited Portsmouth, accompanied by his dog. It happened one day that this dog lost his master, and after seeking him some time seemed to have assured himself that he had passed over the ferry boat without him; on which he hastened to the shop of a bookseller in High-street, and by various motions and expressions of voice and countenance succeeded in making the shopman understand his misfortune. "What!" exclaimed this person, "you have lost your master, have you? well, here is a penny for your fare across the water." The dog instantly took up the coin and ran to Point Beach, dropped the penny into the hand of the waterman, and was ferried across with other passengers.

An affecting anecdote was, a short time since, related in the French papers. A young man took a dog into a boat, rowed to the centre of the Seine, and threw the animal over, with intent to drown him. The poor dog often tried to climb up the side of the boat; his master as often pushed him back, till, overbalancing himself, he fell overboard. As soon as the faithful dog saw his master in the stream, he left the boat and held him above water till help arrived from the shore, and his life was saved. How base and unfeeling is the conduct of those who treat so faithful an animal with cruelty!

"Having left Swillenden," says Vaillant, "on the 12th of January, 1782, I took an easterly course, and, after two days' journey, arrived at a wood named Le Bois du Grand Pere. I determined to stay here till the next day, and prepared accordingly, wishing to explore the wood.

"In calling my dogs, I observed that a little bitch, named Rosetta, of which I was very fond, was wanting. I inquired of all my people, whether they had seen her on the road. One only answered me, that he had fed her in the morning.

"After an hour or two spent in fruitless search, I sent out my Hottentots to call on all sides; I likewise fired my piece several times, thinking the report might reach her,

and put her on the scent. When I saw their endeavours did not succeed, I ordered one of my men to mount my horse, and return the way we came, directing him to spare no pains in tracing my favourite.

"In about four hours we saw the messenger returning, on full gallop, carrying before him, on the pommel of the saddle, a chair and a large basket. Rosetta was running before him, appearing as pleased to see me as I was satisfied with her return.

"The Hottentot informed me, that he had found her at about two leagues distance, seated in the road by the side of the chair and basket, which had dropped from our waggon without being perceived. I had heard much of the fidelity of dogs in similar cases, but this was the first instance I had ever witnessed of it.

"I own the little recital affected me; and the proof she had given of her attachment made her still more valuable. If my man had not been successful in his search, she must have perished with hunger, or become a prey to some wild beast."

A gentleman, in a large market-town, had a valuable Newfoundland dog, which had once preserved his life. The animal, which was called Rover, having run a thorn into his foot, during a few days absence of his master from home, the family had taken no farther notice of it than observing that the dog limped; and by the time his master returned, the poor creature's leg, as well as foot, was in a most inflamed state, and he could not walk. Alarmed at his situation, his master ordered his footman to carry him to his surgeon, who extracted the thorn and dressed the wound; in a short time Rover was able to limp tolerably well: and the master knowing the dog's sagacity, turned him out at the time of the morning when he used to be carried, and the dog regularly went to the surgeon's, scratched at the door till admitted, and then walked into the surgery, where his foot was dressed as usual, till he was perfectly cured; notwithstanding which, habit prompted him to continue his visits at the regular hour, when the surgeon used good-humouredly to take the foot in his hand, and say, "Well, Rover, your foot is well, you need come no more." As long as some notice was taken of the foot, Rover thought it was professional service, and departed well satisfied; but, not understanding the words, he continued his visits for a fortnight. At length, one morning, the surgeon was surprised to find

that he did not depart after the customary handling of the foot; but that he whined, and fidgeted, making towards the door, then returning and staring the doctor in the face, and still whining and wagging his tail; till, finding he was not understood, he took the doctor's coat-skirt in his teeth, and endeavoured to pull him along. The doctor, concluding there was some reason for this, followed him to the door, against which Rover scratched; the doctor opened it, and, lo! there stood another lame dog, which Rover had brought with him, and which the servant had shut out, not considering him a companion of Rover's. The good-natured doctor took the dog in, performed what was necessary to his leg, and Rover and his companion went away, but returned regularly every day at the same hour, till the strange dog was cured. Nor was this the only dog he had to cure; for every lame or wounded dog, with which Rover became acquainted, he regularly accompanied to the doctor, who, from the whimsicality of the thing, as well as from humanity, cured them all; and, as gratitude (we must call it) from them all attached them to him, wherever any of them saw the doctor they were sure to follow him, sometimes two, three, or even six together. As dogs generally run to the places where they see a number of their own species, strange dogs joined them, till at last the doctor became so well known to all the dogs in the town, that the moment he showed his face out of his own door, his canine retinue began to attend him, increasing as he went along, till sometimes he had two or three dozen at a time; and at last it became a nuisance to him, as he became an object of public observation and laughter, and went by the name of Doctor Dog-Star. Yet, as the circumstance made him a constant theme of conversation, and originated in proofs of his skill, it actually increased his business, and the Dog-Star rose in his profession.

The hospitality of the convent of St. Bernard, and the unwearied humanity of the monks, on every occasion that can possibly call for its exercise, have long been proverbial, and numerous instances occur every season, of persons saved by their interference, or relieved by their bounty. In the year 1818 alone, the meals furnished to travellers by this convent amounted to no fewer than 31,078.

An enterprising English party, consisting of men and women, took shelter in the convent of St. Bernard during

a fall of snow. The monks fed them and their horses as long as they could, giving up their bread to the beasts, when they had no more crude grain to bestow on them. The guests had then no other alternative but that of departing; but how were they to get the horses over the snow, which was yet too soft to support them? The ingenuity and activity of the monks found an expedient. They turned out with their servants, and placing blankets before the animals, which were carried forward and extended afresh, as soon as passed over, conducted men, women, and beasts in safety across their mountain.

The breed of dogs kept by the monks to assist them in their labours of love has long been celebrated for their sagacity and fidelity. All the oldest and most tried of them were lately buried, along with some unfortunate travellers, under an avalanche; but three or four hopeful puppies were left at home in the convent, and still survive. The most celebrated of those who are no more, was a dog called Barry. This animal served the hospital for the space of twelve years, during which time he saved the lives of forty individuals. His zeal was indefatigable. Whenever the mountain was enveloped in fogs and snow, he set out in search of lost travellers. He was accustomed to run barking until he lost breath, and would frequently venture on the most perilous places. When he found his strength was insufficient to draw from the snow a traveller benumbed with cold, he would run back to the hospital in search of the monks.

One day, this interesting animal found a child in a frozen state between the bridge of Donaz and the ice-house of Balsora; he immediately began to lick him; and having succeeded in restoring animation by means of his caresses, he induced the child to clasp himself round his body. In this way he carried the poor little creature, as if in triumph, to the hospital. When old age deprived him of strength, the prior of the convent pensioned him at Berny, by way of reward. After his death, his hide was stuffed and deposited in the museum of that town. The little phial, in which he carried a reviving liquor for the distressed travellers whom he found among the mountains, is still suspended about his neck.

Petit, in his "Campaign of Italy," has given the following interesting relation:—"At the time we crossed the Alps, the chapel of the monastery of St. Bernard was filled with dead bodies, which the dogs had discovered,

suffocated and benumbed, under the snow. With what emotions of pleasure did I caress these dogs, so useful to travellers! How can one speak of them without being moved by their charitable instinct? Notwithstanding the scarcity of our eatables, there was not a French soldier who did not manifest an eagerness to give them some biscuit, some bread, and even a share of his meat. Morning and evening they go out on discovery; and if, in the midst of their wandering courses, the echo of some unfortunate creature ready to perish reaches their attentive ears, they run towards those who call out, express their joy, and seem to bid the sufferer take courage till they have been to procure assistance: in fact, they hasten back to the convent, and with an air of inquietude and sadness, announce in a very discernible manner what they have seen. A small basket is then fastened round the dog's neck, filled with food proper for reanimating life almost exhausted; and, by following the humane messenger, an unhappy creature is thus frequently snatched from impending destruction."

Who would imagine that this solitude, the abode of hospitality, should be subject to the depredations of robbers? Some thieves having entered the convent as guests, soon displayed their real character by levying a contribution on the monks: they, however, undismayed, feigned submission, and while arranging the terms of capitulation, the prior, followed by his dogs, entered. Immediately, at the word of command, these faithful animals sprang upon the robbers, and would have torn them to pieces, but for the intercession of their master. Instead of plunder, they asked for pardon, and were suffered to depart under an escort of the next travellers who arrived at the convent.

In the Rue de la Harpe, at Paris, which is a long dismal ancient street in the fauxbourg of St. Marcell, is a space or gap in the line of building, upon which formerly stood two dwelling-houses, instead of which now stands a melancholly memorial, signifying, that upon this spot *no human habitation shall ever be erected, no human being ever must reside.*

Curiosity will of course be greatly excited to ascertain what it was that rendered this devoted spot so obnoxious to humanity, and yet so interesting to history.

Two attached and opulent neighbours, residing in some province, not very remote from the French capital, having

occasion to go to town on certain money transactions, agreed to travel thence and to return together, which was to be done with as much expedition as possible. They were, I believe, on foot, a very common way even at present, for persons of much respectability to travel in France, and were attended, as most pedestrians are, by a faithful dog.

Upon their arrival at the Rue de la Harpe, they stepped into the shop of a *peruquier* to be shaved, before they would proceed on their business, or enter into the more fashionable streets. So limited was their time, and so peremptory was their return, that the first man who was shaved, proposed to his companion, that while he was undergoing the operation of the razor, he who was already shorn would run to execute a small commission in the neighbourhood, promising that he would be back before the other was ready to move. For this purpose he left the shop door of the barber.

On returning, to his great surprise and vexation, he was informed that his friend was gone, but as the dog, which was the dog of the absentee, was sitting outside the door, the other presumed he was only gone out for a moment, perhaps in pursuit of him ; so, expecting him back every moment, he chatted to the barber whilst he watched his return.

Such a considerable time elapsed, that the stranger now became quite impatient ; he went in and out, up and down the street : still the dog remained stationed at the door. "Did he leave no message?" "No ;" all the barber knew was, "that when he was shaved he went away." "It was very odd."

The dog remaining stationed at the door was to the traveller conclusive evidence that his master was not far off ; he went in and out, and up and down the street again. Still no sign of him whatever.

Impatience now became alarm ; alarm became sympathetic. The poor animal exhibited marks of restlessness in yelps and in howlings, which so affected the sensibility of the stranger, that he threw out some insinuations not much to the credit of *Monsieur*, an altercation ensued, and the traveller was indignantly ordered by the *peruquier* to quit his *boutique*.

Upon quitting the shop he found it impossible to remove the dog from the door. No whistling, no calling, no patting would do, stir he would not.

In his agony this afflicted man raised a crowd about the door, to whom he told his lamentable story. The dog became an object of universal interest, and of close attention. He shivered and howled, but no seduction, no caressing, no experiment, could make him desert his post.

By some of the populace it was proposed to send for the police, others proposed a remedy more summary, namely, to force in and search the house, which was immediately done. The crowd burst in, every apartment was searched; but in vain. There was no trace whatever of the countryman.

During this investigation, the dog still remained sentinel at the shop door, which was bolted within to keep out the crowd, which was immense outside.

After fruitless search and much altercation the barber, who had prevailed upon those who had forced in to quit his house, came to the door and was haranguing the populace, declaring most solemnly his innocence, when the dog suddenly sprang upon him, and flew at his throat with such a terrific exasperation, that his victim fainted, and was with the greatest difficulty rescued from being torn to pieces. The dog seemed in a state of intellectual agony and fury.

It was now proposed to give the animal his way, to see what course he would pursue. The moment he was let loose he flew through the shop, and darted down stairs into a dark cellar, where he set up the most dismal lamentation.

Lights being procured, an aperture was discovered in the wall communicating to the next house, which was immediately surrounded, and in the cellar whereof was found the body of the unfortunate man who had been missing. The person who kept this shop was a *patissiere*, or pastry-cook.

It is unnecessary to say those miscreants were brought to trial and executed. The facts that appeared upon that trial, and afterwards upon confession, were these:—

Those incautious travellers, whilst in the shop of this fiend, unhappily talked of the money they had about them, and the wretch, who was a robber and a murderer by profession, as soon as the one turned his back, drew his razor across the throat of the other and plundered him.

The remainder of the story is almost too horrible for human ears, but is not upon that account the less credible.

The pastry-cook, whose shop was so remarkable for

savory patties that they were sent for to the "Rue de la Harpe" from the most distant parts of Paris, was the partner of this peruquier, and those who were murdered by the razor of the one, were concealed by the knife of the other, in those identical patties; by which, independently of his partnership in those frequent robberies, he had made a fortune.

This case being of so terrific a nature, it was made part of the sentence of the law, that, besides the execution of those monsters upon the rack, the houses in which they lived, and in which these infernal deeds were perpetrated, should be pulled down, and that the spot on which they stood should be marked out to posterity with horror and with execration.

The fame of an English bull-dog has been deservedly transmitted to posterity by a monument in basso-relievo, which still remains on the chimney-piece of the grand hall, at the castle of Montargis, in France. The sculpture, which represents a dog fighting with a champion, is explained by the following narrative:—

Aubri de Mondidier, a gentleman of family and fortune, travelling alone in the forest of Bondi, was murdered and buried under a tree. His companion, an English bull-dog, would not quit his master's grave for several days; till at length, compelled by hunger, he proceeded to the house of an intimate friend of the unfortunate Aubri's, at Paris; and by his melancholy howling seemed desirous of expressing the loss they had both sustained. He repeated his cries, ran to the door, looked back to see if any one followed him, returned to his master's friend, pulled him by the sleeve, and with dumb eloquence entreated him to go with him.

The singularity of all these circumstances, and the dog's coming without his master, prompted the company to go along with the animal, who conducted them to a tree, where he renewed his howl, scratching the earth with his feet, significantly entreating them to search that particular spot. Accordingly, on digging, the body of the unhappy Aubri was found.

Some time after, the dog accidentally met the assassin; who is styled, by all the historians that relate this fact, the Chevalier Macaire; when, instantly seizing him by the throat, he was with great difficulty compelled to quit his hold.

In short, whenever the dog saw the chevalier, he con-

tinued to pursue and attack him with equal fury. Such obstinate virulence in the animal, confined only to Macaire, appeared very extraordinary, especially to those who at once recollected the dog's remarkable attachment to his master, and several instances in which Macaire's envy and hatred to Aubri de Mondidier had been conspicuous.

Additional circumstances increased suspicion; and at length the affair reached the royal ear. The king (Louis VIII.) accordingly sent for the dog, who appeared extremely gentle till he perceived Macaire in the midst of several noblemen; when he ran fiercely towards him, growling at, and attacking him as usual.

In those rude times, when no positive proof of a crime appeared, an order was issued for a combat between the accuser and the accused. These were denominated the Judgments of God, from a persuasion that heaven would much sooner work a miracle than suffer innocence to perish with infamy.

The king, struck with such a collection of circumstantial evidence against Macaire, determined to refer the decision to the chance of battle; in other words, he gave orders for a combat between the chevalier and the dog. The lists were appointed in the Isle of Nôtre Dame, then an unenclosed, uninhabited place; Macaire's weapons being a great cudgel. The dog had an empty cask allowed for his retreat, to enable him to recover breath. Every thing being prepared, the dog no sooner found himself at liberty, than he ran round his adversary, avoiding his blows, and menacing him on every side, till his strength was exhausted; then springing forward he griped him by the throat, threw him on the ground, and obliged him to confess his guilt in the presence of the king and the whole court. In consequence of which the chevalier, after a few days, was convicted upon his own acknowledgment, and beheaded on a scaffold in the Isle of Nôtre Dame.

The above curious recital is translated from the *Mémoires sur les Duels*, and is confirmed by many judicious critical writers; particularly Julius Scaliger and Montfauçon, neither of whom have ever been regarded as fabricators of idle stories. On this narrative the melo-drame of the *Forest of Bondi* is founded.

The following singular occurrence is noted by the author of "A Tour through Europe." It took place in the time of Charles the Fifth, and in the vicinity of Lyons.

"A person of some distinction was found dead, early

in the morning, by some peasants, in the midst of an unfrequented wood, and with marks of violence on him. By his side stood a mastiff-dog, that used to attend him in his walks. The monarch was on the spot where the accident happened: he inquired with the utmost rigour after all that could fairly be supposed guilty. An ancient animosity between the deceased and a man of fortune in the neighbourhood had rendered him suspected: his servants had sworn to his being in bed very early on the preceding evening: he himself strongly asserted that he had made up the dispute; but still the king suspected him. Charles the Fifth was a man of discernment; he thought guilt was in his face, in spite of all protestations of innocence; he ordered the suspected person, with twenty others, to be set before him next day, and produced the faithful animal that had been found near the dead body of its master. The noble creature singled out the murderer, who was the very person suspected, and would have torn him to pieces on the spot, if he had not confessed the fact, and thus changed the punishment."

This wonderful instance of canine fidelity and sagacity was made the subject of a monument erected on the top of a castle, which the monarch abovementioned built in the town of Nemours, shortly after this occurrence.

A gentleman of the name of Millar stood looking out of the window of a country inn on a rainy day, when he observed a large dog in a deplorable state of pain, and so lame that he could scarcely move along; he lay himself down beside the door, and Mr. Millar had him brought into the house, notwithstanding the strong expression of dissatisfaction on the part of the landlord: the sufferer had lost an eye, and one of his fore-legs was broken.

Having to remain some time at the inn, Mr. Millar humanely undertook the cure of this unfortunate animal, and in a short time dismissed him in a fair way of recovery. Being detained about a fortnight after this occurrence, Mr. Millar resumed his journey, and soon found his late patient running after him, on the road. One evening, as he was passing over a heathy country, the carriage broke down, and he was obliged to send his servant in search of assistance; but finding nothing could be done till morning, he walked forward to some place where he might sleep during the night. At a considerable distance he came to a small public house at rather a late hour and found the door fastened, and had to wait till an elderly

man came down stairs to give him admittance ; who, after some apologies, and stating that he was quite alone in the house, his maid having left him at this juncture, and his son being from home on business, agreed to accommodate Mr. Millar with the best bed he had in the house.

The dog had all this time kept close to his new master, who, after having taken some refreshment, was shewn into a small bed-room, still followed by the dog : the landlord said the dog could sleep below, but he kept so close to Mr. Millar that he could not easily be separated, and was allowed to remain with him, the landlord observing that he seemed very much like a dog he had lost some time ago. Mr. Millar, having undressed himself, was on the point of entering the bed, when the dog pushed before and prevented him ; he went round to the other side, the animal still following, and seizing firmly hold of his shirt, preventing his effecting his purpose, at the same time using the most expressive gestures to persuade him not to enter the bed. At last Mr. Millar began to be not only astonished, but alarmed at the singular behaviour of the dog, and dressed himself and sat down to reflect on his situation, till he unawares sunk into a slumber in the chair. From this slumber he was roused, either by the dog or some unusual noise, and beheld with astonishment the bed sinking down through the floor as he opened his eyes. Not doubting that mischief was intended, he roused himself, and seizing a pair of pistols he had kept in his pocket ready charged, he instantly rushed down stairs with the light in one hand, and a pistol in the other, hoping to force his passage out of the house : on the stairs he met the landlord with a large knife in his hand, in a menacing attitude, but the dog instantly seized him by the throat, and Mr. Millar fired upon him, and left him weltering in his blood, and instantly rushed out of the house, followed by his preserver ; crossing the heath and seeking his servant, they mounted their horses, and with all expedition sought a magistrate, and brought a civil officer with a party of the military, in time to take the landlord's son and two other ruffians into custody. On their trial, it appeared that they had been for some time past in the habit of robbing and murdering travellers. They all three were found guilty, and received sentence of death.

SIBERIAN, or ESQUIMAUX DOG.

THESE strong and hardy animals draw the country sledges at the rate of five miles, and more, an hour. Nor is this performed with a light weight attached to them. Eight in harness will draw three or four persons with ease and speed. On one occasion an anchor and stock, weighing about a ton, was dragged to its destination by fifteen or sixteen of them; and, generally speaking, they are fully equal to a load of one hundred weight per dog.

They are also bold and vigorous in the chase. With them the Esquimaux hunts the great white Polar bear; and some of those brought to England carry the scars of their prowess in this way. They seize their adversary by his long shaggy hair, and worry and detain him till their masters come up with their spears to end the conflict.

Those in the ships of the late northern expedition, twelve or fourteen in number, were large creatures of various colours,—tan, grey, but mostly black, with white spots over the eyes and on the feet and tip of the tail. They were exceedingly fierce, and more like wolves than dogs. They do not bark, but snarl, growl, and howl in a savage manner. A good many died in consequence of the heat, on their way to England; and even on a cold October day, the survivors were panting as if they had exhausted themselves with running. In the Hecla was one dog bred between the Esquimaux dog and a lurcher taken out from this country. She had six female pups, which became fine powerful animals and quite tame. One of them gave a singular proof of its sagacity in the river:—A lighter came alongside with some casks of fresh water, into which it immediately leaped over the side, and ran from cask to cask, trying to get its head into a bung-hole. This being impossible, one of the men good-humouredly drew a bowl full for it, which it dispatched with evident delight, and then begged for another draught. This it also obtained, drank it nearly all, and with signs of gratification and thankfulness made its way back into the ship.

On their native soil, however, these ferocious animals are often destroyed by the still more ferocious wolves. The latter hunt in packs, and even drag the dogs from the huts, to devour them. Attracted by the scent they were always prowling about our vessels, and daringly carried off whatever came in their way. Thirteen of them were

seen in one pack; all of which were trapped and slain. It was of these the hungry Esquimaux made their dinners. At one time they bore away a dog from the Fury, in spite of the pursuit of the men.

The Siberian dog is carefully trained, and rendered exceedingly useful. Five are generally yoked together, four in pairs, and one as the leader. This last is broke in with great care and attention, by which it becomes very tractable. The cry of *taglag* warns him to turn to the right: when he is required to turn to the left, the driver cries out *hougha, hougha*, which is always immediately understood by the leader dog. When the driver starts off from a place he utters the syllable *ha*, which is understood by the leader and is immediately obeyed. To stop him in his career, the driver pronounces *ha, ha*. Well-trained dogs seldom require the voice to be exerted; a stroke on the ice turns the leader to the left; if the stroke be on the legs of the sledge, the right side is understood; and the dogs stand still if the driver's stick be placed before them in the snow.

These animals are seldom well treated, or well fed. Their chief support in winter is putrid fish; and in summer they are suffered to range at large and provide for themselves. On the return of severe weather, their services being again wanted, the dogs are yoked to the sledge and again subjected to slavery and labour; on which occasion they are heard to utter the most dismal howlings. This is succeeded by a quick yelping, which ceases when they commence their journeys.

The spaniel is remarkable for his attachment to his master, and the favourite companion of the sportsman in the field. Old Daniel was the veteran gamekeeper of Mr. Corsellis, and Dash, the spaniel, was every one's favourite. Whenever old Daniel made his appearance, Dash was not far distant; by night and day they were constantly together. And the sagacity and activity of the dog was peculiarly important in the keeper's nightly expeditions against desperadoes and poachers. Old Daniel was visited by a long-continued illness, of which he died, and on this occasion, Dash attended him with true constancy and affection to his last hour; and lay by his side and would not be torn away from him, as he was extended cold and lifeless on his bed. He was also the truest mourner at his master's funeral, and lingered in the forsaken cottage, and became sad and melancholy, refusing

to eat. He, also daily visited the grave of his master; and on the fourteenth day from that of the funeral he quietly lay down and expired.

The hound is remarkable in supporting a long and arduous pursuit with vigour and resolution. A very large stag was some time ago turned out of Whinfield Park, in the county of Westmorland. In the pursuit the whole pack was thrown out except two favourite dogs, who kept up the chase nearly the whole day. On the return of the stag to the park at night, he was closely followed by one of the dogs, and the other was not far behind. The stag on clearing the wall made his last effort, for he immediately fell down and expired; and of the dogs, one fell from the wall and expired, and the other was found at a short distance also dead. The extent of country traversed on this occasion was computed to be one hundred and twenty miles.

In a fox chase, in Cambridgeshire, in 1795, the pack divided, and fifteen couple and a half, who continued the pursuit, were found to have passed over an extent of thirty miles in about an hour and three-quarters.

The blood-hound was formerly much used to discover game, maimed and lost by the hunters. He also became famous in the discovery of murders and capital offenders, whom he pursued with undeviating perseverance; and seldom-failing effect. In reference to this animal, a law was passed in Scotland, that any person refusing admittance to the blood-hound in his pursuit of a robber should himself be adjudged guilty of the theft.

The chasseurs in the Spanish West Indian Islands are constantly employed in traversing the country with trained blood-hounds, to discover murderers and other delinquents; and it very rarely happens that a single individual escapes being taken.

A Jamaica fleet conveyed by a British squadron, in passing the gulph of Mexico, lost one of her number, which was driven on shore in the night time. The ship was manned with foreigners, chiefly Spanish renegadoes, who murdered the officers, and the few British seamen, and plundered the vessel, hoping to escape with their booty to the mountains. Immediate intelligence of this transaction reaching Havanna, the assassins were pursued by a detachment of the *Chasseurs del Rey*, with blood-hounds, and in the course of a very few days they were every one of them caught and brought to justice.

A very few blood-hounds are at present kept in Britain : and those only in the lodges of the royal forests, and in some of the northern parts of the kingdom, for the purpose of pursuing deer that have been previously wounded, and in some cases discovering deer-stealers, whom they trace by the blood that issues from the wound of their victims. The following circumstance, which happened in the New Forest in 1810, is a striking instance of their acuteness of scent. A person discovered on the stile of a field near the forest marks of blood, and recollecting that some deer had been killed, and several sheep stolen in the neighbourhood, he conjectured that it might probably have proceeded from one which had been killed the preceding night. He immediately went to the nearest lodge to give information, but the keeper being from home, he was obliged to go to Rhinefield Lodge, which was at a considerable distance. The under keeper went with him to the place, accompanied with a blood-hound, and which was immediately laid on the scent, and after running about a mile, came at length to a heap of furze belonging to the family of a cottager. On removing the faggots, a hole was discovered, which contained the body of a sheep that had been recently killed, together with a quantity of salted meat. It appeared that the dog had not been brought to the scent until more than sixteen hours after the sheep had been carried away.

Of all the various species of dogs, by far the strongest and largest, as well as the most sensible, is the NEWFOUNDLAND DOG. In its native country, this animal is made to perform the offices of the horse and the ass. Professor Kalm often saw them in places about Quebec yoked to carts, with harness and bits. In Newfoundland they are employed to carry wood on sledges. Four dogs yoked to a sledge are able, with apparent ease, to draw three hundred weight of wood for a distance of several miles. In swimming they are extremely skilful, and their extraordinary attachment and sagacity render them in many respects highly valuable.

A gentleman who went to Portsmouth to bathe, in 1792, having been conducted by one of the machines into the water, and being unacquainted with the steepness of the shore, and unable to swim, found himself immediately on quitting the machine, out of his depth : and owing to his own state of alarm, and the inattention of the person who

attended the machine, he was in imminent danger of drowning. At this moment a large Newfoundland dog that was standing on the shore, and looking in that direction, plunged into the water, seized the man by the hair, and dragged him in safety to shore.

The following is a still more striking instance of sagacity. During a severe storm, in the winter of 1789, a ship belonging to Newcastle, was lost near Yarmouth, and a Newfoundland dog alone escaped to shore, bringing in his mouth the captain's pocket book. He landed amidst a number of people, several of whom attempted in vain to obtain his prize; but, as if sensible of the importance of his charge, which had probably been confided to him by his perishing master, he at length leaped fawningly against the breast of a man amongst the crowd, who had particularly attracted his notice, and delivered it to him. He then returned to the place where he had landed, and watched attentively for all the things that came from the wrecked vessel, which he endeavoured to seize and bring to land.

A very extraordinary instance of memory in a MASTIFF is related by M. D'Obsonville. It had accompanied him and a friend from Pondicherry to Benglour, a distance of more than three hundred leagues. The following are our author's own words: "Our journey occupied nearly three weeks; and we had to traverse numerous plains and mountains, and to ford rivers, and to go along several bye paths. The animal, which had certainly never been in that country before, lost us at Benglour, and immediately returned to Pondicherry. He went directly to the house of M. Beylier, then commandant of Artillery, my friend, and with whom I had generally lived. Now the difficulty is, not so much to know how the dog subsisted on the road (for he was very strong and able to procure himself food), but how he could so well have found his way, after an interval of more than a month. This was an effort of memory greatly superior to that which the human race is capable of exerting."

The BULL-DOG is one of the fiercest and boldest of the whole animal race. Some years ago, at a bull-baiting in the North of England, a young man, confident of the courage of his dog, laid a wager that, at separate times, he would cut off all the animal's feet; and that, after every successive amputation, it would attack the bull. The

horrible experiment was tried; and the dog, inattentive to the injury it had received, continued to seize upon the bull with its accustomed eagerness.

The TERRIER, as the following well authenticated anecdote will prove, is possessed also of its share of sagacity. A gentleman of Whitmore, in Staffordshire, used to ride twice a year to London, accompanied most part of the way by a faithful little terrier, which, from fear of losing it in London, he always left to the care of Mrs. Langford, his landlady, at St. Albans. When, on his return one time, he called as usual for his dog; the landlady appeared with a woeful countenance, "Alas! sir, your terrier is lost! our great house dog and he had a quarrel, and the poor terrier was so bitten before we could part them, that I thought he could never have got the better of it; but he crawled out of the yard, and no one saw him for almost a week. He then returned, and brought with him another dog, bigger by far than ours; and they both together fell on our great dog, and bit him so unmercifully, that he has scarcely since been able to go about the yard, or to eat his meat. Your dog and his companion then disappeared, and have never since been seen at St. Albans." On the gentleman's arrival at Whitmore, however, he found his dog, and learnt that it had come to Whitmore, and had coaxed away the great dog, who had accompanied it to St. Albans, to avenge its injury.

At a convent in France, at a certain hour every day, twenty paupers were served with dinner. Their several portions were delivered at the ringing of a bell, by a machine, called in religious houses a *tour*, resembling the section of a cask, which, by turning round upon a pivot, exhibits whatever is placed on the concave side, without discovering the person who moves it. A dog, belonging to the convent, generally attended to pick up the scraps which were now and then thrown to it; but as the guests were poor and hungry, its share was very small. One day the dog, after waiting till all the paupers were gone, rang the bell, and succeeded so well, that it did not fail to repeat the experiment. At length the cook, finding that instead of twenty portions twenty-one were always called for, watched and discovered the trick. The affair was related to the community, and as a reward for its ingenuity, the dog was permitted every day to ring for its dinner, when a mess of broken victuals was regularly

served out for it. Nowise inferior to this dog was the hero of the following story. A grocer in Edinburgh had a dog, which had for some time contributed to the amusement and astonishment of his neighbours. A man who went about the streets selling penny pies, once treated this dog with a pie. The next time he heard the pieman's bell, the dog seized him by the coat, and would not permit him to pass. The pieman, who understood what the dog wanted, showed him a penny, and pointed to his master, who stood at the shop door, looking on. The dog immediately went to him with supplicating looks, on which he put a penny into his mouth, which the dog as quickly delivered to the pieman, and received his pie; and he became a daily customer to the pieman for many months.

The Wolf.

THE wolf was certainly never celebrated for his mental refinement, or for any uncommon share of sagacity; and yet, in the history of his life, we read a comment that will startle those who are strangers to his habits and practices. They who have been much addicted to the hunting of this animal have remarked a very sensible difference between the proceedings of one young and raw, and those of a full-grown and instructed individual of the species. Young wolves, after having passed two months in the litter, during which period they are fed by their parents, afterwards follow their dam, which is no longer able to answer the demands of their daily encreasing voracity. In her society, and instructed by her example, they tear live animals to pieces, try their fortune in the chase, and gradually provide for the common wants of the family. The habitual exercise of rapine, under the guidance of an experienced mother, communicates to them every day some ideas relative to the pursuit of their object. They become familiar with the retreats of their game; their senses are alive to all sorts of impressions, which they gradually discriminate, and they correct precipitate or erroneous judgments by the sense of smell. When they are eight or nine months old, their mother leaves them to their own devices, and goes in quest of a male; but the young family still continue united for some time, till their ravenous propensities no longer admit participation of spoil. The strongest then remains master of the

spot, and the more weakly retire to seek subsistence in other quarters. When they surmount this critical period, their augmented strength and instruction multiply their facilities of existence; and they are enabled to attack large animals, one of which will afford them nourishment for several days. They carefully conceal the remnants of their repast, but without relaxing their zeal in the chase; and they have recourse to their hidden morsels only when the pursuit has proved unsuccessful. Such are some of the purely natural habitudes of the wolf: but they are wonderfully modified in those districts in which he dreads the approach of man; and in which the constant necessity of shunning snares, and providing for safety, compels him to extend the sphere of his activity, and to exercise his attention on a greater number of objects. His procedure, which is naturally free and bold, now becomes circumspect and timid; his appetite is often unsatisfied from fear; and he distinguishes the sensations recalled by memory from those which are produced by the actual use of his faculties. At the moment, therefore, when he scents a flock confined in a park, the idea of the shepherd and his dog is also present to his thoughts; and balancing the different impressions, he eyes the height of the inclosure, compares it with his strength, judges of the difficulty of clearing it when encumbered with his spoil, and desists from the fruitless or hazardous attempt; whereas, from a flock scattered in an open field, he will seize a sheep even in the sight of the shepherd, especially if the neighbourhood of a wood favours his escape. So cautious is the wolf in its attack, that in several parts of the Continent, if a man has to traverse alone the forests and wilds, where he is prowling in search of prey, only a slight rope with a bundle of twigs trailed behind him, is reported to be a sufficient defence against its voracity; and this is said to be the common practice of the Portuguese peasants, where the country is frequented by these animals.

Notwithstanding its savage disposition, the wolf is capable, when taken young, of being tamed. In eastern countries, particularly in Persia, wolves are taught to dance, and exhibited as a spectacle to the people. M. de Buffon brought up several tame wolves; during the first year, he found them very gentle and docile, but at the age of eighteen months, or two years, their natural ferocity began to appear, and it was necessary to chain them fast, to hinder them from running off, and doing mischief.

Instances are not wanting of wolves having been effectually tamed, and of their showing an attachment equal to that of any other animal. The fate of lieutenant Salsford was distinguished by a singular circumstance. A large tame wolf, caught at Aspro, which had been brought up from a cub by the ship's company, was exceedingly docile, and continued to the last an object of general solicitude. Sensible of its danger, its howls were peculiarly distressing. It had always been particularly fond of the lieutenant, who was also greatly attached to the animal, and through the whole of their sufferings it kept close to its master. On the breaking up of the ship, both got upon the mast. At times they were washed off, but by each other's assistance regained it. The lieutenant at last became exhausted by continual exertion, and benumbed with cold. The wolf was equally fatigued, and both held occasionally by the other to retain his situation. When within a short distance of the land, lieutenant Salsford, affected by the attachment of the animal, totally unable any longer to support himself, turned towards him from the mast; the beast clapped its fore paws round his neck, while the lieutenant clasped it in his arms, and they sunk together.

In the Polar regions the wolves are larger and of a different colour from those of the more southern climates. A white wolf was killed at Fort Enterprize, during the second winter of Captain Franklin's expedition. Its length was four feet four inches; its height, two feet ten inches; and the length of the tail nineteen inches. It was at first intended to preserve the animal, but proving too bulky, it was left behind. It was previously known that white wolves existed in the Arctic vicinity of the seas; and it is probable that loss of colour is effected by the severity of the winter season. A white wolf, and a Polar bear, brought from the Arctic regions by Captain Ross, are now among the curiosities in the British Museum.

The HYÆNA.

THE Striped Hyæna is a native of Asiatic Turkey, Syria, Persia, and many parts of Africa. Its aspect indicates a peculiar sullenness and ferocity of disposition, and its manners entirely correspond with its appearance. Nevertheless, instances have occurred of this animal having

been tamed. Mr. Pennant saw an hyæna as gentle as a dog; and M. de Buffon says that there was one exhibited at Paris that was apparently divested entirely of all its ferocity.

"These creatures," says Mr. Bruce, "were a general scourge to Abyssinia, in every situation, both of the city and the field; and they seemed to surpass even the sheep in number. From evening till the dawn of day, the town of Gondar was full of them. Here they sought the different pieces of slaughtered carcasses, which this cruel and unclean people were accustomed to expose in the streets without burial. Many a time in the night, when the king had kept me late in the palace, on going across the square from the king's house, I have been apprehensive lest they should bite me in the leg. They grunted in great numbers around me, although I was surrounded with several armed men, who seldom passed a night without wounding or slaughtering some of them. One night in Maitsha, being very intent on an observation, I heard something pass behind me towards the bed; but on looking round, could perceive nothing. Having finished what I was then about, I went out of my tent, resolving directly to return; this I immediately did, and in so doing perceived two large blue eyes glaring at me in the dark. I called my servant to bring a light; and we found a hyæna standing near to head of the bed, with two or three large bundles of candles in its mouth. To have fired at him, would have been at the risk of breaking my quadrant or other furniture: and he seemed, by keeping the candles steadily in his mouth, to wish at that time for no other prey. As his mouth was full, and he had no claws to tear with, I was not afraid of him, and with a pike struck him as near the heart as I could. It was not until I had done this, that he showed any sign of fierceness; but upon feeling his wound he dropped the candles, and endeavoured to run up the shaft of the spear to arrive at me, so that I was obliged to draw a pistol from my girdle and shoot him; and nearly at the same time, my servant cleft his skull with a battle-axe. In a word, the hyænas were the plague of our lives, the terror of our night-walks, and the destruction of our mules and asses, which, above every thing else, are the favourite food."

The mode of hunting these animals, as related by Mr. Jackson, in Barbary is very extraordinary. A party of ten or twelve persons, accompanied by as many dogs of

various kinds, go to a cavern which they have previously ascertained to be the haunt of a hyæna. One of the party then strips himself naked, and taking in one hand the end of a rope with a noose to it, he advances gradually into the cave, at the same time speaking gently and in an insinuating tone, pretending to fascinate the hyæna by words. When he reaches the animal he strokes him down the back, which appears to sooth him. He then dexterously slips the noose round his neck, and makes known to them on the outside of the cave, by pulling the rope, that it is fixed, and, having thrown a cloth over the eyes of the animal, retires behind the hyæna, and urges him out, while the people without pull the rope. When they have dragged him to the mouth of the cave he is destroyed by the dogs. This operation, if the rope happen to break, is attended with considerable danger to the man behind; but he is always provided with a dagger, or large knife, to defend himself in case of attack.

A few years ago, there was an hyæna in Exeter 'Change, about six months old, so tame, that it was occasionally suffered to come out of its den, into the exhibition room; it would there allow even strangers to handle it without the least sign of displeasure, and was accustomed to play with any of the dogs that came into the room. But even in this animal there was a considerable degree of sullenness and ill-nature, which was observed to increase as it advanced in age. It was afterwards sold to a Mr. Tennant, of Pentonville, whom it was sometimes permitted to accompany in his excursions over the fields. From him it passed into the possession of the owner of a caravan, who exhibited it about the country. In his hands it speedily began to show, probably owing to its unusual confinement, all the ferocity of its race, and would no longer admit the approach of any one to its den. In this situation it lived but a very short period. Another animal of the same species, and equally tame with the former, experienced the same change of disposition with a similar change of circumstances, and was at last killed by a tiger, the partition of whose den from his own it had torn down by the enormous strength of its jaws.

In the year 1819, there was brought to the royal menagerie of Schoenbrun, a male hyæna, of Africa, which had been taken by a trap, in which it lost the paw of the right hind leg. It then had on a collar of iron, which as it appeared too tight, they used every means in their

power to loosen, but without effect, it being found too dangerous to approach closely to this ferocious animal. It continued, therefore, to bear the collar for four years, suffering the greatest torture, as the iron was every day sinking into the flesh. - When M. Van Aken brought his Polar bear to the menagerie, he saw, for the first time, the hyæna, which had then become so furious, that it was dangerous to approach within four or five yards of the cage. He often retreated to the bottom of the cage, in order to spring forward with more impetuosity, uttering the most hideous cries, and endeavouring to seize in his claws every thing that was near the door. Van Aken, after some examination, promised the keeper of the menagerie to free the animal from the collar, without the least danger. On the 20th of June, about nine o'clock, he caused a piece of oak wood to be thrown into the cage, when the hyæna immediately pounced on it with such fury, as to drive its teeth half an inch into the wood; and though having greatly wounded his tongue, he was reluctant, or incapable of extricating himself from the wood. This was what Van Aken expected. A rope was instantly thrown round the animal's body, to draw it to the door of the cage; which being done, they tied its legs, and, having got it out of the cage, muzzled it. As soon as the muzzle was put on, the animal became quite tranquil. But the most difficult part was yet to be performed—to take off the collar and clean the wounds, which had existed five years, and the filthy matter of which emitted a most intolerable smell: the collar was surrounded with a great quantity of unsound and putrified flesh. The hyæna became so tranquil during this part of the operation, that it seemed as if it were sensible of the service rendered; but when they were about to apply to the wound a mixture, composed of spirits of wine, vinegar, and salt, the pain which the animal felt caused all his fury to return: and, though his feet and head were bound fast, by a sudden contortion of the back and neck he plunged two feet above the ground. It required all the strength of five men to hold him and rub the wounds. It was still very difficult, after he was carried to a new cage, larger than the former one, and placed by the side of a female hyæna, to unloose his feet and take off the muzzle. These operations were, however, executed with the same success as the preceding one, the precaution being first taken of holding the head and legs by means of cords, which were let loose at

once, when the animal, finding itself disengaged, made a desperate plunge in the cage, and threw off the muzzle to a considerable distance. All was done without any person being wounded, or even slightly scratched. When food was given to the hyæna in front of the cage, they continued to make injections of the above mixture upon the wound.

The TIGER WOLF, or SPOTTED HYÆNA.

THE *Canis Crocuta* of Linnæus, is a species in most particulars very similar to the preceding. It is an inhabitant of the southern regions of Africa, particularly the neighbourhood of the Cape Territory. In ferocity, it is excelled by few other animals. The enormous strength of its jaws may be imagined from the following instance. A carpenter had just finished some repairs in the den of a spotted hyæna in the Tower, by nailing a thick oak plank on the floor, about eight feet in length, with at least a dozen strong nails. At one end, having no chisel at the moment to take it off, he had left a small piece that stood higher than the rest. Whilst he had gone to fetch his tools, some persons came to visit the animals, and the hyæna was let down into its den. The instant it entered, the animal discovered the piece that was left at the end of the plank, and seizing it with its teeth, he tore the plank completely up, drawing every nail.

Dr. Sparrman has given us the following interesting and circumstantial account of the Tiger Wolf of Africa.

"The night," says he, "or the dusk of the evening only, is the time in which these animals seek their prey, after which they generally roam about either separately or in flocks. But one of the most unfortunate properties of this creature is, that it cannot keep its own counsel. The language of it cannot easily be taken down upon paper; however, with a view to make this species of wolf better known than it has been hitherto, I shall observe, that it is by means of a sound something like the following, *aauae*, and sometimes *ooao*, yelled out with a tone of despair (at the interval of some minutes between each howl), that nature obliges this, the most voracious animal in all Africa, to discover itself, just as it does the most venomous of all the American serpents, by the rattle in its tail, to warn every one to avoid its mortal bite. This same rattle-snake

would seem, in consequence of thus betraying its own designs, and of its great inactivity, to be, as it were Nature's step-child, if, according to many credible accounts, it had not the wondrous property of charming its prey by fixing its eye upon it. The like is affirmed also of the tiger-wolf. This creature, it is true, is obliged to give information against itself; but, on the other hand, is actually possessed of the peculiar gift of being enabled, in some measure, to imitate the cries of other animals; by which means this arch-deceiver is sometimes lucky enough to beguile and attract calves, foals, lambs, and other animals. As to the howlings of this creature, they are, in fact, as much the natural consequences of hunger, as gaping is of a disposition to sleep; and as the flowing of the saliva, or the water coming into the mouth, is at the sight of some delicacy, which excites the appetite. There must, indeed, be some physical cause for this. The very hollowness of the sound, or some other quality of it, which I cannot well describe, induces me to conjecture, that it proceeds from the emptiness of the stomach. In the meanwhile, that a disposition to this yelling is absolutely implanted in the animal by nature, I am apt to conclude, from the instance of a young tiger-wolf that I saw at the Cape, which, though it had been brought up tame from a whelp by a Chinese resident there, and was then chained up, was said, nevertheless, to be silent in the day-time, but very frequently in the night (being then probably hungry) was heard to emit the yelling noise peculiar to its kind. Near some of the larger farms, where there are many cattle, this ravenous beast is to be found almost every night; and at the same time frequently from one hour to another betraying itself by its howlings, gives the dogs the alarm. The peasants assured me, that the cunning of the wolves was so great (adding, that the trick had now and then even succeeded with some of them), that a party of them, half flying and half defending themselves, would decoy the whole pack of dogs to follow them to the distance of a gun-shot or two from the farm, with a view to give an opportunity to the rest of the wolves to come out from their ambuscade, and, without meeting with the least resistance, carry off booty sufficient for themselves and their fugitive brethren. As the tiger-wolf, though a much larger and stronger animal, does not venture, without being driven to the utmost necessity, to measure its strength with the common dog, this is

certainly an evident proof of its cowardice. Neither does this voracious beast dare openly to attack oxen, cows, horses, or any of the larger animals, while they make the least appearance as if they would defend themselves, or even as long as they do not betray any signs of fear. On the other hand, it has art enough to rush in upon them suddenly and unexpectedly, at the same time setting up a horrid and strange cry, so as to set them running in consequence of the fright, that it may afterwards keep close to their heels with safety, till it has an opportunity with one bite or stroke to rip up the belly of its prey (even though it should be so large an animal as a draught-ox), or else give it some dangerous bite, and so at once make himself master of its antagonist. On this account the peasants are obliged to drive their cattle home every evening before it is dark, excepting the more considerable droves of draught-oxen, which they let roam about day and night to seek their food unattended, by reason that they are used both to the country and the artifices of the wolves, and can therefore the easier depend upon and defend each other.

“Travellers, on the other hand, who are obliged to keep on in their journey, frequently suffer great losses by turning their cattle out at night; especially of the young ones, which are easiest scared. I have heard the following story of the tiger-wolf mentioned, as being related in a certain treatise on the Cape, of which I now cannot exactly remember the title. The tale is laughable enough, though, perhaps, not quite so probable:—

“At a feast near the Cape one night, a trumpeter, who had got his fill, was carried out of doors, in order that he might cool himself, and get sober again. The scent of him soon drew thither a tiger-wolf, which threw him on his back, and dragged him along with him as a corpse, and consequently a fair prize, up towards Table-mountain. During this proceeding, our drunken musician waked enough in his senses to know the danger of his situation, and to sound the alarm with his trumpet, which he carried fastened to his side. The wild beast, as may easily be supposed, was not less frightened in its turn. Any other besides a trumpeter would, in such circumstances, have undoubtedly been no better than wolf’s meat; but although the trumpeter escaped, it is a certain truth, and well known to every body, that these wolves are to be found almost every dark night about the sham-

bles at the Cape, where they devour the offals of bones, skin, &c., which are thrown out there in great quantities, and drag away with them what they cannot eat. The inhabitants repay these good offices of the hyæna with a free and unlimited privilege of access and egress. The dogs, too, hereabouts, perfectly accustomed to their company, are said never to throw any impediment in their way: so that the beasts, entertained and fed in the very heart of the town, have been seldom known to do any mischief there. It is likewise a well-known fact, that these wolves, in different parts of Africa, exhibit different degrees of courage; this, however, may perhaps proceed from their being of different species in different parts.

“Yet in this very greediness of the hyæna, and its disposition to consume every thing it can get at, the provident economy of Nature is abundantly evinced. The flowery fields at the Cape would certainly soon become hideous and disfigured with carcasses and skeletons, the relics of the great quantity of game of all sorts which graze and die there in succession, were not the tiger-wolf manifestly subservient to Nature in the regulation of her police, by clearing her theatre from them; nay, I had almost said the wolf alone; for lions and tigers, for example, never eat bones, and are not very fond of carcasses. These are serviceable in another way. They make the other animals vigilant and attentive to the functions for which Nature has designed them; and besides answering several other intentions of Providence, they serve, in conjunction with mankind, to keep in a just equilibrium the increase of the animal kingdom; so that it may not exceed the supplies afforded it by the vegetable part of the creation, and by this means prevent the necessary renewal of the latter by seeds, &c., and thus, by desolating it and laying it waste, in the end impoverish and destroy themselves, and die most wretched victims to want and hunger; so that, notwithstanding the immense quantities of game existing in this country, there are very seldom found any bones in the haunts they have left, and never after the tiger, lion, jackal, wild cat, and wild dog. These latter animals, that they may not encumber and litter the ground which Nature has ordained them to clear, never go out of their dens and caverns when they find themselves sick and disabled, but there, oppressed with hunger and disease, await the transitory moment when they must pay obedience to Nature’s last law.”

The JACKAL.

IN the forests of Asia and Africa, the jackals associate in packs of from fifty to two hundred ; and, like hounds, hunt during the night, in full cry. All the animals of the forest are roused by their howlings ; and the lion and other beasts of prey attend to these cries as a signal for the chase, and seize such timid animals as fly from the noise. Hence it has been called the "Lion's Provider." When any of these creatures begin to utter their cry, all the rest do the same ; so that when one of them has entered into a house to steal, and hears his companions at a distance, he cannot refrain from joining in the concert, and thus sometimes detects himself.

These animals, according to Buffon, are very difficult to be tamed. He kept one for nearly a year, but neither caresses nor food would soften its disposition. It would suffer no one to touch it, but attempted to bite every person who came near it.

THE BARBARY JACKAL, or THALEB, is the most cunning and active animal imaginable, and differs considerably in its disposition from the former species.

"One day," says M. Sonnini, "as I was meditating in a garden in Egypt, I stopped near a hedge. A thaleb, hearing no noise, was coming through the hedge towards me ; and when he had cleared himself was just at my feet. On perceiving me, he was seized with such surprise that he remained motionless for some seconds, without even attempting to escape, his eyes fixed steadily on me. Perplexity was painted in his countenance, with a degree of expression of which I could not have supposed him susceptible, and which denoted great delicacy of instinct. On my part, I was afraid to move, lest I should put an end to this situation, which afforded me much pleasure. At length, after he had taken a few steps, first towards one side and then the other, as if so confused as not to know which way to get off, and keeping his eyes still turned towards me, he retired ; not running, but stretching himself out, or rather creeping with a slow step, setting down his feet one after another with singular precaution. He seemed so fearful of making a noise in his flight, that he held up his large tail almost in an horizontal line, that it might neither drag on the ground, nor

brush against the plants. On the other side of the hedge I found the fragments of his meal: it had consisted of a bird of prey, great part of which he had devoured."

The Fox.

THE following instance of parental affection in the COMMON FOX, is taken from Dr. Goldsmith. A female fox that had but one cub, was unkennelled, and closely pursued by the hounds of a gentleman near Chelmsford. The poor animal braving every danger, rather than leave her cub to be worried by the dogs, took it up in her mouth, and carried it in this manner for several miles. At last, passing through a farm-yard, she was assaulted by a mastiff, and was obliged to drop her cub, which was taken by the farmer. A female fox was pursued near St. Ives, for about three-quarters of an hour, carrying a cub in her mouth during the whole time.

Of the ARCTIC FOX, the Russian traveller Steller has given us an entertaining and almost incredible account. "During my unfortunate abode," he says, "on Bhering's Island, I had but too many opportunities of studying the nature of these animals, which far exceed the common fox in impudence, cunning, and roguery. They forced themselves into our habitations by night as well as by day, stealing all that they could carry off; even things that were of no use to them, such as knives, sticks, and clothes. They were so ingenious as to roll down our casks of provisions, and then to steal the meat out with such skill, that, at first, we could not bring ourselves to ascribe the theft to them. While employed in stripping an animal of its skin, it has often happened that we could not avoid stabbing two or three foxes, from their rapacity in tearing the flesh out of our hands. If we buried this flesh ever so carefully, and even added stones to the weight of earth that was upon it, they not only found it out, but with their shoulders pushed away the stones. If, in order to secure it, we put any animal at the top of a high post in the air, they either dug up the earth at the bottom of the post, and thus tumbled the whole down, or one of them climbed up, and with incredible artifice and dexterity threw down what was upon it.

"They watched all our motions, and accompanied us in whatever we were about to do. If the sea threw up an

animal of any kind, they devoured it before we could arrive to rescue it from them ; and if they could not consume the whole of it at once, they trailed it off in portions to the mountains, where they buried it under stones before our eyes, running to and fro as long as any thing remained to be conveyed away. While this was doing, others stood on guard, and watched us. If they saw any one coming at a distance the whole troop would combine at once, and begin digging all together in the sand, till even a beaver or sea-bear in their possession would be so completely buried under the surface, that not a trace of it could be seen. In the night-time, when we slept in the field, they came and pulled off our night-caps, and stole our gloves from under our heads, with the beaver coverings, and the skins we lay upon. In consequence of this we always slept with our clubs in our hands, that if they awoke us, we might drive them away, or knock them down.

“ Whenever we made a halt to rest, they gathered around us, and played a thousand tricks in our view ; and when we sat still, they approached us so near, that they gnawed the thongs of our shoes. If we lay down, as if intending to sleep, they came and smelt at our noses, to find whether we were dead or alive. On our first arrival they bit off the noses, fingers, and toes of our dead, while we were preparing the grave ; and they thronged in such a manner about the infirm and sick, that it was with difficulty we could keep them off.

“ Every morning we saw these audacious animals patrolling about among the leonine seals, and sea-bears, that were lying on the strand, smelling at such as were asleep, to discover whether some of them might not be dead : if that happened to be the case, they proceeded to dissect him immediately ; and soon afterwards all were at work in dragging the parts away. Because the seals sometimes in their sleep overlaid their young ones, the foxes every morning examined the whole herd, one by one, as if conscious of this circumstance, and immediately dragged away the dead cubs from their dams.

“ As they would not suffer us to be at rest, either by night or day, we became so exasperated against them, that we killed them, young and old, and harassed them by every means we could devise. When we awoke in the morning, there always lay two or three that had been knocked on the head in the preceding night ; and I can safely affirm, that during my stay upon the island, I killed

above two hundred of these animals with my own hands. On the third day after my arrival, I knocked down with a club, and within the space of three hours, upwards of seventy of them, and made a covering to my hut with their skins. They were so ravenous that with one hand we could hold to them a piece of flesh, and with a stick or axe in the other could knock them down."

THE CAT TRIBE.

The LION.

THE following interesting sketches we have extracted from the "*South African Journal*" (a periodical published at Cape Town), as being peculiarly illustrative of the life and manner of this noble animal.

"Two varieties of the lion are found in South Africa, namely, the yellow and the brown; or (as the Dutch Colonists often term the latter), the blue or black lion. The dark coloured species is commonly esteemed the strongest and fiercest. I doubt, however, whether there is any real or specific distinction; for the mere difference of colour may be either altogether accidental, or the consequence of a variation of food and climate in different districts.

"The lions in the Bushmens' country, beyond the limits of the colony, are accounted peculiarly fierce and dangerous. This is doubtless owing to their unacquaintance with civilized man, the possessor of the formidable *roer* or rifle; and still more perhaps to their natural awe of mankind having been extinguished by successful rencounters with the miserable Bushmen. These poor savages, though they possess the assagay, or Caffres' javelin, are deficient in address or courage to use it, as the Caffres do, with effect upon this powerful beast of prey; and their light arrows of slender reed, though often effectual in ultimately destroying the largest and fiercest animals, by the infusion of a deadly poison through the slightest puncture, yet afford no available defence against the direct attack of this ferocious and headlong antagonist.

"It is said, that when the lion has once tasted human flesh, he thenceforth entirely loses his natural awe of

human superiority. It is at least too certain, that when he has once succeeded in snatching some unhappy wretch from a Bushman kraal, he never fails to return regularly every night in search of another meal ; and often harrasses them so dreadfully as to force the horde to desert their station ; and will then follow them like a vampyre throughout their wanderings, till they either succeed in destroying him, or till he has finally devoured the whole band.

“ From apprehensions of such nocturnal attacks from the lions, these wretched hordes are said to be in the habit of placing their aged and infirm nearest the entrance of the cave or covert where they usually sleep, in order that the least valuable may first fall a prey and serve as a ransom for the rest.

“ The prodigious strength of this animal does not appear to have been overrated. It is certain, that he can drag the heaviest ox with ease a considerable way ; and a horse, heifer, hartebeest, or lesser prey, he finds no difficulty in throwing upon his shoulder and carrying off to any distance he may find convenient. I have myself witnessed an instance of a very young lion conveying a horse about a mile from the spot where he had killed it : and a more extraordinary case which occurred in the Sneeuwberg, has been mentioned to me on good authority ; where a lion, having carried off a heifer of two years old, was followed on the *spoor* or track for full five hours (above thirty English miles,) by a party on horseback ; and throughout the whole distance the carcase of the heifer was only once or twice discovered to have touched the ground. Many examples, not less remarkable, might easily be added, which would fully prove the lion to be by far the strongest and most active animal, in proportion to his size, that is known to exist.

“ Mr. Barrow has represented the lion of South Africa as a cowardly and treacherous animal, always lurking in covert for his prey, and scampering off in shame and fear if he misses his first spring. I apprehend, that that intelligent traveller has in this, as in some other instances, been led to draw an erroneous conclusion by reasoning too hastily from limited experience or inaccurate information. The lion, it is true, not less now than in ancient times, usually ‘lurketh privily in secret places,’ and ‘lieth in wait’ to spring suddenly and without warning upon his prey. This is the general characteristic of every variety of the feline tribe to which he belongs ; and for this mode of

hunting alone has nature fitted him. The wolf and hound are furnished with a keener scent and untiring swiftness of foot to run down their game. The lion and leopard are only capable of extraordinary speed for a short space ; and if they fail to seize their prey at the first spring, or after a few ardent and amazing bounds they naturally abandon the pursuit from the consciousness of being unequal to continue it successfully. The lion springs from nine to twelve yards at a single leap, and for a brief space, can repeat these bounds with such activity and speed, as to outstrip the swiftest horse in a short chase ; but he cannot hold out at this rate in a long pursuit, and seldom attempts it. The monarch of the forest is, in fact, merely a large cat, and he must live by using the arts of a cat. He would have but a poor chance with the antelopes, were he always magnanimously to begin to roar whenever a herd approached his lair. He knows his business better, and in fact generally couches among the rank grass or reeds that grow around the pools and fountains, or in the narrow ravines through which the larger game descend to drink at the rivers ; and in such places one may most commonly find the horns and bones of the animals which have been thus surprised and devoured by him.

“ Even in such places, it is said, he will generally retreat before the awe-inspiring presence of man ;—but not precipitately, nor without first calmly surveying his demeanour, and apparently measuring his prowess. He appears to have the impression, that man is not his natural prey ; and though he does not always give place to him, he will yet, in almost every case, abstain from attacking him, if he observes in his deportment neither terror nor hostility. But this habitual deference is not to be counted upon under other circumstances, nor even under such as now described, with entire security. If he is hungry, or angry, (and the latter mood of mind is supposed to be the unfailing accompaniment of a craving stomach with most lions, as well as with many men)—or if he be watching the game he has killed, or is otherwise perturbed by rage or jealousy, it is no jest to encounter him. If he *does* approach, the traveller must elevate his gun and take aim at the animal's forehead, before he comes close up and couches to survey or spring upon him ; for in that position, though he may possibly give way to calmness and self-possession, he will tolerate no offensive movement, and

will anticipate by an instant and overwhelming bound, any attempt *then* to take aim at him. These observations are advanced not in the confidence of my own slight experience, but upon the uniform testimony of many of the back-country Boors and Hottentots with whom I have often conversed on such subjects.

“The Bochuana chief, old Peysho, (now in Cape-Town,) conversing with me a few days ago about the wild animals of Africa, made some remarks on the lion which perfectly correspond with the accounts I have obtained from the Boors and Hottentots. ‘The lion,’ he said, ‘very seldom attacks man if unprovoked; but he will frequently approach within a few paces and survey him steadily; and sometimes he will attempt to get behind him, as if he could not stand his look, but was yet desirous of springing upon him unawares. If a person in such circumstances attempts either to fight or fly, he incurs the most imminent peril; but if he has sufficient presence of mind coolly to confront him, without appearance of either terror or aggression, the animal will, in almost every instance, after a little space, retire. But,’ he added, ‘that when a lion has once conquered man, he becomes tenfold more fierce and ravenous than he was before; and will even come into the kraals in search of him, in preference to other prey.’ This epicure partiality to human flesh, in these too-knowing lions, does not, in Peysho’s opinion, spring either from necessity or appetite, so much as from the ‘native wickedness of their hearts.’

“The over-mastering effect of the human eye upon the lion has been frequently mentioned, though much doubted by travellers. But from my own inquiries among lion-hunters, I am perfectly satisfied of the fact: and an anecdote, which was related to me a few days ago by Major Mackintosh, (late of the East India Company’s service,) proves that this fascinating effect is not restricted exclusively to the lion. An officer in India (whose name I have forgot, but who was well known to my informant,) having chanced to ramble into a jungle adjoining the British encampment, suddenly encountered a royal tiger. The encounter appeared equally unexpected on both sides, and both parties made a dead halt, earnestly gazing on each other. The gentleman had no fire-arms, and was aware that a sword would be no effective defence in a struggle for life with such an antagonist. But he had heard, that even the Bengal tiger might be sometimes

checked by looking him firmly in the face. He did so. In a few minutes the tiger, which appeared preparing to make his fatal spring, grew disturbed, slunk aside, and attempted to creep round upon him behind. The officer turned constantly upon the tiger, which still continued to shrink from his glance ; but darting into the thicket, and again issuing forth at a different quarter, it persevered for above an hour in this attempt to catch him by surprise ; till at last it fairly yielded the contest, and left the gentleman to pursue his *pleasure-walk*. The direction he now took, as may be easily believed, was straight to the tents at double quick time.

“Poor Gert Schepers, a Vee Boor of the Cradock District, was less fortunate in an encounter with a South-African lion. Gert was hunting in company with a neighbour, whose name, as he is yet alive, and has perhaps been sufficiently punished, I shall not make more notorious. Coming to a fountain, surrounded, as is common, with tall reeds and rushes, Gert handed his gun to his comrade, and alighted to search for water. But he no sooner approached the fountain, than an enormous lion started up close at his side, and seized him by the left arm. The man, though taken by surprise, stood stock still without struggling ; aware that the least attempt to escape would ensure his instant destruction. The animal also remained motionless, holding fast the boor’s arm in his fangs, but without biting it severely ; and shutting his eyes at the same time, as if he could not withstand the countenance of his victim. As they stood in this position, Gert collecting his presence of mind, began to beckon to his comrade to advance and shoot the lion in the forehead. This might have been easily effected, as the animal not only continued still with closed eyes, but Gert’s body concealed from his notice any object advancing in front of him. But the fellow was a vile poltroon, and in place of complying with his friend’s directions, or making any other attempt to save him, he began cautiously to retreat to the top of a neighbouring rock. Gert continued earnestly to beckon for assistance for a long time, the lion continuing perfectly quiet. And the lion-hunters affirm, that if he had but persevered a little longer, the animal would have at length relaxed his hold and left him uninjured. Such cases at least they maintain have occasionally occurred. But Gert, indignant at the pusillanimity

of his comrade, and losing patience with the lion, at last drew his knife (a weapon which every back-country colonist wears sheathed at their side), and with the utmost force of his right arm plunged it into the animal's breast. The thrust was a deadly one ; for Gert was a bold and powerful man ; but it did not prove effectual in time to save his own life ; for the enraged savage, striving to grapple with him, and held at arm's length by the utmost efforts of Gert's strength and desperation, so dreadfully lacerated the breast and arms of the unfortunate man with his talons, that in a few minutes the veins and muscles were torn to shreds, and his bare bones laid open. The lion fell at last from loss of blood, and Gert fell along with him. The cowardly companion, who had witnessed this fearful struggle from the rock, now, however, took courage to advance, and succeeded in carrying his mangled friend to the nearest house, where such surgical aid as the neighbours could give was immediately but vainly supplied. Poor Gert expired on the third day after, of a lock jaw. The particulars of this story were related to me by my late neighbour, old Wentzel Koetzer, of the Tarka, and by other respectable farmers in that vicinity, to whom both Schepers and his friend were well known.

The circumstances of the following anecdote, which was related to me in the Landdrost's house, at Beaufort in the Nieuwveld, are very similar to the preceding, though not equally tragical. A boor of that district, of the name of De Clerque, one day riding over his farm, had alighted in a difficult pass, and was leading his horse through the long grass, when a lion suddenly rose up before him at a few yards' distance. He had in his hand only a light fowling-piece, loaded with slugs ; and hoping that the beast would give way, he stood still and confronted him ; (the plan universally recommended in such emergencies ;) but the lion, on the contrary, advancing and crouching to spring, he found himself under the necessity of firing. He took a hurried aim at the forehead, but the slugs lodged in the breast, and did not prove instantly mortal. The furious animal sprang forward, and seizing De Clerque on either side with his talons, bit at the same time his arm almost in two, as he mechanically thrust it forward to save his face. In this position he held him a few seconds till his strength, failing from loss of blood, the lion tumbled over, dragging the boor along with him in a

dying embrace. De Clerque, however, escaped without any fatal injury, and had recovered, and visited Beaufort a few days before I was there, in 1282. -

“The hero of the following story is a Hottentot of the Agter Sneeuwberg. I have forgotten his name, but he was alive two years ago, when the story was related to me at Cradock, in that neighbourhood. This man was out hunting, and perceiving a buck (antelope) feeding among some bushes, he approached in a creeping posture, and had rested his gun over an ant-hill to take a steady aim, when observing that the creature's attention was suddenly and peculiarly excited by some object near him, he looked up and perceived with horror that an enormous lion was at that instant creeping forward and ready to spring upon him. Before he could change his posture, and direct his aim upon this antagonist, the savage beast bounded forward, seized him with his talons, and crushed his left hand, as he endeavoured to guard him off with it, between his monstrous jaws. In this extremity the Hottentot had the presence of mind to turn the muzzle of the gun, which he still held in his right hand, into the lion's mouth, and then drawing the trigger, shot him dead through the brain. He lost his hand, but happily escaped without further injury.”

“Other curious particulars respecting the habits of the lion, and illustrated by anecdotes of his ferocity or forbearance, equally interesting and well-authenticated, may form the substance of a future article. For the present, the reader is probably as well pleased to quit the subject as the writer has sometimes been himself, after a three hours' palaver in broken Dutch--seated perhaps under a large mimosa, after night-fall, in the midst of the Great Karroo, and looking round suspiciously now and then into the shade, to see that no shaggy monster with flaming eyes was prowling round and overhearing the unfriendly tales we were telling of his kinsfolks. I shall close this paper with an anecdote of Lucas van Vuuren, a Vee Boor, residing on the late Colonel Graham's farm of Lyndoch, and for two years my next neighbour at the Bavian's River. It shows that even our colonial lions, when pressed for a breakfast, will sometimes forget their usual respect for 'christian men,' and break through their general rule of 'let-a-be for let-a-be.'—Lucas was riding across the open plains, near the Little Fish River, one morning about day-break, and observing a lion at a distance, he endea-

voured to avoid him by making a wide circuit. There were thousands of springboks scattered over the extensive flats ; but the lion, from the open nature of the country, had probably been unsuccessful in hunting. Lucas soon perceived, at least, that he was not disposed to let him pass without further parlance, and that he was rapidly approaching to the encounter ; and being without his roer, and otherwise little inclined to any closer acquaintance, he turned off at right angles, laid the sambok freely to his horse's flank, and galloped for life. But it was too late. The horse was fagged, and bore a load on his back ; the lion was fresh and furious with hunger, and came down upon him like a thunder-bolt. In a few seconds he overtook, and springing up behind Lucas, brought horse and man in an instant to the ground. Luckily the boor was unhurt, and the lion was too eager in worrying the horse, to pay any immediate attention to the rider. Hardly knowing himself how he escaped, he contrived to scramble out of the fray, and made the best use of his heels till he reached the nearest house. Lucas, who gave me the details of this adventure himself, made no observations on it as being any way remarkable, except in the circumstance of the lion's audacity in pursuing a 'christian man,' without provocation, in open day. But what chiefly vexed him in the affair was the loss of the saddle. He returned next day with a party of friends to search for it and take vengeance on his feline foe. But both the lion and saddle had disappeared, and nothing could be found but the horse's clean picked bones. Lucas said he could excuse the *schelm* for killing the horse, as he had allowed himself to get away, but the felonious abstraction of the saddle (for which, as Lucas gravely observed, he could have no possible use), raised his spleen whenever he told the story of this hairbreadth escape.

"Amongst other peculiarities ascribed to the lion, is his supposed propensity to prey on black men in preference to white, when he has the choice ; or, as the Cape Boors explain it, his discretion in refraining from the flesh of 'christian men,' when 'Hottentot folk' are to be come at. The fact of this preference, so strongly allged, need not be disputed ; but I am inclined to account for it on somewhat different grounds from those usually assigned. The lion, like most other beasts of prey, is directed to his game by the scent as well as by the eye.—Now the *odour* of the woolly-haired races of men, and especially of the

Hottentot in his wild or semi-barbarous state, 'unkempt, unwashed, unshaven,' is peculiarly strong; as every one, who has sat behind a Hottentot waggon-driver, with the breeze in his nostrils, knows right well. The lion, prowling round after night-fall in search of a supper, is naturally allured by the pungent effluvia, steaming for miles down the wind—and doubtless equally attractive to him as the scent of a savoury beef-steak to a hungry traveller. He cautiously approaches, finds the devoted wretch fast asleep under a bush, and feels it impossible to resist keen appetite and convenient opportunity. He seizes on the strong-scented Hottentot, while the less tempting boor is left unnoticed, perhaps by his side, but more probably reclined at a little distance with his feet to the fire, or within or under his waggon. The following anecdotes, illustrative of these remarks, were told me by old Jacob Mare, (my respectable and friendly fellow-traveller across the Great Karroo), who knew the parties personally.

"A farmer of the name of Van der Merwe had outspanned his waggon in the wilderness, and laid himself down to repose by the side of it. His two Hottentot servants, a man and his wife, had disposed themselves on their ready couch of sand, at the other side. At midnight, when all were fast asleep, a lion came quietly up and carried off the poor woman in his mouth. Her master and her husband, startled by her fearful shrieks, sprung to their guns; but without avail. Favoured by the darkness, the monster had conveyed, in a few minutes, his unfortunate victim far into the thickets, beyond the possibility of rescue.

"A Hottentot at Wolven or Jackall's Fountain, had a narrow though ludicrous escape on a similar occasion. He was sleeping a few yards from his master, in the usual mode of his nation, wraped up in his sheep-skin *carosse*, with his face to the ground. A lion came softly up, and seizing him by the thick folds of his greasy mantle, began to trot away with him—counting securely no doubt on a savoury and satisfactory meal. But the Hottentot, on awaking, being quite unhurt though sufficiently astonished, contrived somehow to wriggle himself out of his wrapper, and scrambled off, while the disappointed lion walked simply away with the empty integument.

"Numerous stories of a similar description are related by the back-country farmers, and many of them sufficiently well-authenticated to prove the general fact of the

lion's curious taste for 'people of colour;' but I suspect there is also some degree of exaggeration about the matter, which will not fail to be exposed whenever we get the lion's, or at least the Hottentot's, 'own account' of these transactions.

"The following amusing story, which was related to me by some respectable farmers of the Tarka, who were present on the occasion, would make a good figure in 'The Lion's History of the Man.' A party of boors went out to hunt a lion which had carried off several cattle from the neighbourhood. They discovered him in a thicket or jungle, such as abound in that part of the colony, and sent in a numerous pack of fierce hounds to drive him out. The lion kept his den and his temper for a long time, only striking down the dogs with his mighty paw, or snapping off a head or leg occasionally, when the brawling rabble came within his reach. But the hunters, continuing in the meanwhile to pepper the bush at random with slugs and bullets, at length wounded him slightly. Then rose the royal beast in wrath, and, with a dreadful roar, burst forth upon his foes. Regardless of a shower of balls, he bounded forward, and, in an instant, turned the chase upon them. All took to their horses or their heels. One huge fellow, of greater size than alacrity, not having time to mount his horse, was left in the rear, and speedily run down by the rampant *Leeuw*. Hugo fell, not as Lochiel, 'with his back to the field and his face to the foe,' but the reverse way; and he had the prudence to lie flat and quiet as a log. The victorious *Leeuw* snuffed at him, scratched him with his paw, and then, magnanimously bestriding him, sat quietly down upon his back. His routed companions, recollecting in a body, took courage at length to face about; and, seeing the posture of affairs, imagined their comrade was killed, and began to concert measures for revenging him. After a short pause, however, the lion resigned, of his own accord, his stool of triumph, relieved his panting captive, and retreated towards the mountains. The party, on coming up, found their friend shaking his east, unharmed from the war, except what had suffered from the very ungentlemanly conduct of the lion.*

* My respected friend, the Rev. Mr. Faure, on reading this article, confirms the truth of many of these stories, and, were there occasion, could add many more of a similar description. He mentions that in the year 1816 or 1817, at Leeraar's Kraal, Orange River, Arnoldus Pienaar

“The following occurrence is another evidence of the lion’s general forbearance towards mankind, so long as other prey can be got. Three butchers’ servants were crossing the Great Karroo; and having halted near a fountain, with the intention of resting for the night, two of them went to collect firewood; the other remaining to knee-halter the horses, as is usual, to prevent them from straying. Whilst he was thus occupied, three lions suddenly made their appearance, and, selecting each a horse, brought down in an instant the two that were haltered; the third horse, breaking loose from a bush to which he was tied, galloped off, with the third lion in chase of him. Of the two successful lions, one carried off his prey into the thicket, while the other, laying down beside his, watched the man, who, half stupified by the havoc, now began to think of making his retreat; but as soon as he moved, the lion began to growl and bristle up in a threatening attitude; lying quietly down again, however, when he stood still. After several timid attempts, thus checked by his watchful adversary, he judged it advisable to remain stationary till his comrades returned. They did so soon after; and the lion, on seeing this reinforcement, resigned his prey, and hastily retired.

“Another instance of the lion’s preference of horse-flesh to human, and even to Hottentot, occurred lately at Jan van Zyl’s, near the Brak River, Cradock District. A Hottentot servant of this family, riding home one night from a neighbouring farm where his wife resided, was pursued by two lions, and pulled off the horse by one of them, which, in the struggle, severely bit his leg and arm; but immediately left him without further notice, and joined his comrade in pursuit of the horse. The poor man was found next day by the herdsman, and was lately seen by a friend of mine, quite recovered, though with the loss of a hand and foot.

“I shall conclude these notices of this animal (which, whether of any value or not to the naturalists, are at least sufficiently well-authenticated), with some account of a lion hunt which I witnessed myself, in April, 1822. I was then residing on my farm or location at Bavian’s river, in the neighbourhood of which numerous herds of large game, and consequently beasts of prey, are abundant.

killed a lioness as she lay stretched on the body of his brother, Jan Pienaar, whom she had struck down and couched upon.

One night a lion, who had previously purloined a few sheep out of the kraal, came down and killed my favourite riding-horse, about a hundred yards from the door of my cabin. Knowing that the lion, when he does not carry off his prey, usually conceals himself in the vicinity, and is, moreover, very apt to be dangerous by prowling about the place in search of more game, I resolved to have him destroyed or dislodged without delay. I therefore sent a messenger round the location to invite all who were willing to assist in the fray, to repair to the place of rendezvous as speedily as possible. In an hour every man of the party (with the exception of two pluckless fellows who were kept at home by the women) appeared, ready mounted and armed. We were also reinforced by about a dozen of the 'Bastaard Hottentots,' who resided at that time upon our territory as tenants or herdsmen—an active and enterprising, though rather an unsteady, race of men. Our friends the neighbouring Dutch boors, many of whom are excellent lion-hunters, were all too far distant to assist us—our nearest *neighbours* residing at least twenty miles from the location. We were therefore, on account of our own inexperience, obliged to make our Hottentots the leaders of the chase.

"The first point was to trace the lion to his covert. This was effected by a few of the Hottentots on foot: commencing from the spot where the horse was killed, they followed the *spoor* through grass, and gravel, and brushwood, with astonishing ease and dexterity, where an inexperienced eye could discern neither foot-print nor mark of any kind, until, at length, we fairly traced him into a large *bosch*, or straggling thicket of brushwood and evergreens, about a mile distant.

"The next object was to drive him out of this retreat, in order to attack him in a close phalanx, and with more safety and effect. The approved mode, in such cases, is to torment him with dogs till he abandons his covert, and stands at bay in the open plain. The whole band of hunters then march forward together, and fire deliberately, one by one. If he does not speedily fall, but grows angry, and turns upon his enemies, they must then stand close in a circle, and turn their horses rear-outward; some holding them fast by the bridles, while the others kneel to take a steady aim at the lion as he approaches, sometimes up to the very horses' heels, couching every now and then, as if to measure the distance and the strength of his enemies.

This is the moment to shoot him fairly in the forehead, or some other mortal part. If they continue to wound him ineffectually, till he waxes furious and desperate—or if the horses, startled by his terrific roar, grow frantic with terror, and burst loose, the business becomes rather serious, and may end in mischief, especially if all the party are not men of courage, coolness, and experience. If they stand close and firm, it is alleged that the lion will seldom, if ever, actually burst in upon them; but if they are so infatuated as to take to flight, or get confused and break their ranks, he will infallibly make sad havoc among them. The boors are, however, generally such excellent marksmen, and withal so cool and deliberate, that they seldom fail to shoot him dead as soon as they get within a fair distance.

“In the present instance we did not manage matters so scientifically. The Bastaards, after recounting to us all these and other sage laws of lion-hunting, were themselves the first to depart from them. Finding that the few indifferent hounds we had had made little impression on the enemy, they divided themselves into two or three parties, and rode around the jungle, firing into the spot where the dogs were barking round him, but without effect. At length, after some hours spent in thus beating about the bush, the Scottish blood of some of my countrymen began to get impatient, and three of them announced their determination to march in and beard the lion in his den, provided three of the Bastaards (who were superior marksmen) would support them, and follow up their fire, should the enemy venture to give battle. Accordingly in they went (in spite of the warnings of some more prudent men), to within fifteen or twenty paces of the spot where the animal lay concealed. He was couched among the roots of a large evergreen bush, with a small space of open ground on one side of it; and they fancied, on approaching, that they saw him distinctly, lying glaring at them from under the foliage. Charging the Bastaards to stand firm and level fair should they miss, the Scottish champions let fly together, and struck—not the lion (as it afterwards proved), but a great block of red stone, beyond which he was actually lying. Whether any of the shot grazed him is uncertain, but, with no other warning than a furious growl, forth he bolted from the bush. The rascally Bastaards, in place of now pouring in their volley upon him, instantly turned, and fled, helter-skelter, leaving

him to do his pleasure upon the defenceless Scots, who, with empty guns, were tumbling over each other in their hurry to escape the clutch of the rampant savage. In a twinkling he was upon them, and with one stroke of his paw dashed the nearest to the ground. The scene was terrific! There stood the lion with his foot upon his prostrate foe, looking round in conscious power and pride upon the bands of his assailants, and with a port the most noble and imposing that can be conceived. It was the most magnificent thing I ever witnessed. The danger of our friends, however, rendered it at the moment too terrible to enjoy either the grand or the ludicrous part of the picture. We expected, every instant, to see one or more of them torn in pieces; nor, though a band of us were standing within fifty paces, with our guns cocked and levelled, durst we fire for their assistance. One was lying under the lion's feet, and the others scrambling towards us in such a way as to intercept our aim upon him. All this passed far more rapidly than I have described it. But luckily, the lion, after steadily surveying us for a few seconds, seemed willing to be quits on fair terms, and, with a fortunate forbearance (for which he met but an ungrateful recompense), turned calmly away, and driving the snarling dogs like rats from among his heels, bounded over the adjoining thicket like a cat over a footstool, clearing brakes and bushes twelve or fifteen feet high as readily as if they had been tufts of grass; and abandoning the jungle, retreated towards the mountain.

"After ascertaining the state of our rescued comrade, (who fortunately had sustained no other injury than a slight scratch on the back, and a severe bruise in the ribs, from the force with which the animal had dashed him to the ground), we renewed the chase, with Hottentots and hounds in full cry. In a short time we again came up with the enemy, and found him standing at bay under an old mimosa tree, by the side of a mountain stream, which we had distinguished by the name of Douglas Water. The dogs were barking round, but afraid to approach him; for he was now beginning to growl fiercely, and to brandish his tail in a manner that showed he was meditating mischief. The Hottentots, by taking a circuit between him and the mountain, crossed the stream and took a position on the top of a precipice overlooking the spot where he stood. Another party of us occupied a position on the other side of the glen, and placing the poor fellow

thus between two fires, which confused his attention and prevented his retreat, we kept battering away at him, without truce or mercy, till he fell, unable again to grapple with us, covered with wounds and glory.

“He proved to be a full-grown lion, of the yellow variety, about five or six years of age. He measured nearly twelve feet from the nose to the tip of the tail. His fore leg, just above the knee, was so thick that I could not clasp it with both hands; and his neck, breast, and limbs appeared, when the skin was taken off, a complete congeries of sinews. His head, which seemed as large and heavy as that of an ordinary ox, I had boiled, for the purpose of preserving the skull, and tasted the flesh from curiosity: it resembled very white coarse beef, rather insipid, but without any disagreeable flavour.

“Our neighbours, the Nimrods of the Tarka, disapproved highly of our method of attacking this lion in the bush, and said it was a wonder he did not destroy a few of us. They were highly amused with the discomfiture of our three champions; and the story of ‘Jan Rennie en de Leeuw’ still continues to be one of their constant jokes against the Scotchmen. This is all fair; and it forms a just counterpoise in favour of our good-humoured neighbours, when the Scottish farmers quiz them too unmercifully about their uncouth agriculture and antediluvian ploughs and harrows.”

The strength of the lion is so prodigious, that a single stroke of his paw is sufficient to break the back of a horse; and one sweep of his tail will throw a strong man to the ground. Kolbein says, that, when he comes up to his prey, he always knocks it down dead, and seldom bites it till the mortal blow has been given. A lion at the Cape of Good Hope was once seen to take a heifer in his mouth; and though that animal’s legs dragged on the ground, yet he seemed to carry her off with as much ease as a cat does a rat.

Two yeomen of the Cape of Good Hope being on a hunting party with several Hottentots near Bosheisman’s river, perceived a lion dragging a buffalo from the plain to a wood upon a neighbouring hill. On forcing him to quit his prey, they found that he had had the sagacity to take out the buffalo’s large and unwieldy entrails, in order to be able the more easily to escape with the fleshy part of the carcase. And as soon as he saw, from the skirts of the wood, that the Hottentots had begun to carry off the

flesh to the waggon, he frequently peeped out upon them, probably with no little mortification.

A lion had broken into a walled enclosure for cattle, and had done considerable damage. The people belonging to the farm were well assured that he would come again by the same way. They therefore stretched a rope directly across the entrance, to which several loaded guns were fastened in such a manner, that they must necessarily discharge themselves into the lion's body as soon as he should push against the cord with his breast. But the lion, who came before it was dark, and had probably some suspicion of the cord, struck it away with his foot, and without betraying the least alarm in consequence of the reports made by the loaded pieces, went fearlessly on, and devoured the prey he had left untouched before.

Though the lion generally springs upon his prey from some lurking-place, yet instances have occurred of his deviating from this mode of attack. Dr. Sparrman has mentioned one. A Hottentot, perceiving that he was followed by a lion, and concluding that the animal only waited the approach of night to make him his prey, began to consider what was the best mode of providing for his safety, and at length adopted the following:—Observing a piece of broken ground with a precipitate descent on one side, he sat down by the edge of it; and found, to his great joy, that the lion also made a halt, and kept at a distance behind him. As soon as it grew dark, the man, sliding gently forward, let himself down a little below the edge of the steep; and held up his cloak and hat on his stick, at the same time gently moving them backward and forward. The lion, after a while, came creeping towards the object; and, mistaking the cloak for the man himself, made a spring at it, and fell headlong down the precipice.

Some years ago a dog was put into the cage of a lion in the menagerie at the Tower. The stately animal spared its life; and they lived together for a considerable time in the same den, in the most perfect harmony. The dog had sometimes the impudence to growl at the lion, and even to dispute with him the food which was thrown to them. The lion, however, was never known to chastise the impertinent conduct of his little companion: but usually suffered it to eat quietly till it was satisfied, before he began his own repast.

In the Museum at Paris, one of the lionesses littered three times. At the first litter she produced nine, at the

second three, and at the third two young ones. The parents, which were about equal in age, and probably were of the same litter, had been caught together, when somewhat more than a year old, in a wood, in the north of Africa. They lived happily together, were extremely gentle, and exhibited great affection towards each other. None of the young ones had at first either a mane or tuft at the end of their tails : and we are assured that these do not begin to appear till the animals are three years or three years and a half old. Their coat was somewhat woolly, and of a colour between grey and red. They had several little brown transverse strokes on the upper part of their back. As they increased in size, these by degrees disappeared ; and, with a more regular proportion of limbs, the hair assumed nearly the colour of that of the old animals.

The sporting gentlemen at Kaira, in Bombay, being informed that three lions had been discovered in a small jungle two miles from Beereije, immediate preparations were made to assemble a large party, and to proceed toward these formidable visitants, whose appearance had struck a panic into the inhabitants of the neighbouring villages. They were of extraordinary size and ferocious appearance ; and six of the inhabitants unwarily approaching, had been torn to pieces. The cattle had also been destroyed, and the business of husbandry could not be carried on. These accounts urged the party, of sixteen gentlemen, to proceed to the field of action, attended by a body of armed Peons, from the Adaulet and Revenue departments. The guides took them to the precise spot, where the lions were reposing in state. The party advanced, with due caution, to within a few paces of the jungle, without disturbing the residents. A momentary pause, big with expectation, succeeded. At that instant, three dogs, which had joined the hunt, unconscious of danger, approached the very threshold of their *presence*, and were received with such a growl, as made the bravest of the company tremble. One of the dogs was killed, and the other two fled, and were seen no more. Presently a lioness was seen at the mouth of the den, and a few arrows were discharged at her ; this did not induce her to attack her assailants, but drove her out on the opposite side, accompanied by two cubs, about two-thirds grown. The party pursued her over some newly ploughed ground ; when suddenly one of the men, stationed in the

trees, called out to them to be on their guard ; and an enormous lion was seen approaching in the open field, at an easy canter, lashing his tail in a style of indescribable grandeur. The party presented their pieces, just as the animal had cleared, at one bound, a chasm of twelve feet broad. He was apparently wounded in the shoulder, but nevertheless sprung at Mr. M. tearing his arm in a dreadful manner ; and feeling at the same time a Peon's lance, he relinquished his first hold, and seizing the poor man by the throat, nearly strangled him, before the party could fire. He was now at bay, but so sheltered, that it was not easy to bring him down ; when suddenly the man in the tree gave another alarm, and a lioness was seen approaching. Their ears at the same instant were assailed by the cries of men, women, and children, occasioned by the animal crossing the road in the midst of the coolies, who were conveying tiffin to the villages. A woman and child were immediately sacrificed ; the woman literally torn to pieces. This was not the worst ; for the gentlemen leaving the other animal, to protect the village, the lioness rushed upon the Peons, seized one of them, tore the flesh from his face, and crushed his skull. The next who advanced had his thigh torn, on which, in his agony, he caught the beast by the throat, when she quitted his thigh, and fastened on his arm and breast. At this instant twenty balls were lodged in her body, and she retreated to the hedge, when some more shots killed her. She had abundance of milk, which from the novelty I tasted. Both the Peons died in a few hours ; but Mr. M. recovered.

One of the Namaaqua Hottentots, as he was driving his master's cattle into a pool of water, between two ridges of rock, espied a huge lion couching in the midst of the pool, with his eyes fixed upon him ; the Hottentot instantly took to his heels, and judging that the lion would prefer the cattle to human flesh, had presence of mind enough to run through the herd. But he was mistaken. The lion broke through the herd, and pursued the Hottentot alone, who, on perceiving that he was singled out, climbed breathless and half dead into a neighbouring tree-*aloe*, in the trunk of which a few steps had been cut to facilitate the approach to the birds' nests, which the branches contained. At the same moment the lion made a spring at him, but missed his aim and fell upon the ground. In surly silence he walked round the tree, casting now and then a ferocious look towards the spot where

the poor man had concealed himself behind the nests, which were those of the social grosbeak, and consequently sufficiently calculated for the purpose. Having remained silent and motionless for a considerable length of time, he ventured to peep over the side of the nest, hoping that the lion had departed, when his eyes met those of the animal, which (to use his own expression) *flashed fire at him*. In short, the lion laid himself down at the foot of the tree, and did not move from the place for four and twenty hours. At the end of this time, becoming parched with thirst, the animal went to a spring at some distance. The Hottentot now descended, and succeeded in safely reaching his home. The lion, however, still persevered; when it returned to the tree, and found that its victim was gone, it followed him by the scent to within three hundred paces of his dwelling.

A lion, about three months old, was caught, in 1787, in the forests of Senegal, and was domesticated by Pelletau, the director of the African company in that colony. The unusually gentle disposition of this animal rendered him a great favourite with all persons who saw him; he was in most respects as tractable as any domestic animal could be. He slept in the same place, and in the greatest harmony, with sheep, dogs, cats, monkeys, geese, ducks, &c. When he was about eight months' old, two whelps were littered by a terrier on his bed. This new family excited a most lively interest in the lion; and he shewed to them all the affection of a parent. When one of them died, his attachment was redoubled towards the other. At the age of fourteen months, the lion and his companion were embarked for France; and he shewed, during the voyage, so little of ferocity, that he could at all times be allowed with safety to range at liberty about the vessel. When landed at Havre, he was conducted with only a cord attached to his collar, and attended by his dog to Versailles. Soon after their arrival, the dog died, when the lion was so disconsolate that it was found necessary to put another dog into his den. This dog, terrified at the sight of such an animal, endeavoured to conceal itself, and the lion, surprised by the noise, killed it by a stroke of one of his paws. A third dog was put into the den, and lived with the lion for some time afterwards.

M. Felix, the keeper of the animals in Paris, brought, some years ago, two lions, a male and a female, to the national menagerie. About the beginning of the follow-

ing June he was taken ill, and was under the necessity of employing another man to perform his duty. The male sat from that moment sad and solitary at the end of his cage, and refused to take food from the hands of the stranger, to whom he showed a visible dislike. The company even of the female seemed to displease him: and it became by degrees so uneasy, that no one dared to approach it. At length Felix recovered, and with the intention of surprising the lion crawled softly to the cage, and showed only his face between the bars: the lion instantly made a bound, leaped against the bars, patted him with his paws, licked his hands and face, and trembled with pleasure. The female also ran to him; but the lion drove her back, and was on the point of quarrelling with her, so jealous was he, lest she should snatch any favours from Felix: but Felix entered the cage to them, caressed them by turns, and pacified them. He had so great a command over them, that when he wished them to do any thing, he had but to give the command, and it was done.

"It is now," said Von Wyk, "more than two years since, in the very place where I stand, I ventured to take one of the most daring shots that ever was hazarded. My wife was sitting within the house near the door, the children were playing about her, and I was without, busied in doing something to a waggon, when suddenly, though it was mid-day, an enormous lion appeared, came up, and laid himself quietly down in the shade, upon the very threshold of the door! My wife, either frozen with fear, or aware of the danger attending any attempt to fly, remained motionless in her place, while the children took refuge in her lap. The cry they uttered attracted my attention, and I hastened towards the door; but my astonishment may well be conceived, when I found the entrance to it barred in such a way. Although the animal had not seen me, unarined as I was, escape seemed impossible; yet I glided gently, scarcely knowing what I meant to do, to the side of the house, up to the window of my chamber, where I knew my loaded gun was standing. By a most happy chance, I had set it in the corner close by the window, so that I could reach it with my hand; for the opening was too small to admit of my having got in; and still more fortunately, the door of the room was open, so that I could see the whole danger of the scene. The lion was beginning to move, perhaps with the intention of making a spring. There was no longer any time to think: I

called softly to the mother not to be alarmed, and, invoking the name of the Lord, fired my piece. The ball passed directly over the hair of my boy's head, and lodged in the forehead of the lion, immediately above his eyes, which shot forth, as it were, sparks of fire, and stretched him on the ground so that he never stirred more."—*Lichtenstein's Travels in South Africa*.

The skin of a noble lion was sent by the Sheikh of Bornou, a kingdom of Central Africa, to Major Denham; it had been taken near Kabshary, and measured from the tail to the nose fourteen feet two inches. He had devoured four slaves, and was at last taken by the following stratagem:—The inhabitants assembled together, and with loud cries and noises drove him from the place where he had last feasted; they then dug a very deep circular hole, armed with sharp-pointed stakes; this they most cunningly covered over with stalks of the gussub; a bundle of straw enveloped in a tobe, or African shirt, was laid over the spot, to which a gentle motion, like that of a man turning in his sleep, was occasionally given by means of a line carried to some distance. On their quitting the spot, and the noise ceasing, the lion returned to his haunt, and was observed watching his trap for seven or eight hours, by degrees approaching closer and closer; and at length he made a dreadful spring upon his supposed prey, and was precipitated to the bottom of the pit. The Kabsharians now rushed to the spot, and before he could recover himself, despatched them with their spears.

The TIGER.

THIS animal possesses all the bad qualities of the lion. To pride, strength, and intrepidity, the lion joins magnanimity, and sometimes clemency; while the tiger is fierce without provocation, and cruel without necessity. Regardless of man and all his hostile weapons, he is the scourge of every country which he inhabits. Yet, although he will venture to attack sometimes even the lion itself, he is possessed of much characteristic cowardice, and will seldom attack any thing, even less powerful than himself, unless when enjoying advantage of situation, or when infuriated by hunger or pain.

A company, seated under the shade of some trees near the bank of a river in Bengal, were alarmed by the unexpected appearance of a tiger, preparing for its fatal spring:

but a lady having, with almost unexampled presence of mind, unfurled a large umbrella in the animal's face, it instantly retired, as if confounded by so extraordinary and so sudden an appearance, and thus afforded them an opportunity to escape. Another party, however, were not so happy; but, in the height of their entertainment, one of their companions was suddenly seized and carried off by a tiger.

A party went on shore on Sangar Island some years ago, to shoot deer, of which they saw innumerable tracks, as well as of tigers: they continued their diversion till near three o'clock; when, sitting down by the side of a jungle to refresh themselves, a roar, like thunder, was heard, and an immense tiger seized on Mr. Monro, son of Sir Hector Monro, Bart., and immediately rushed into the jungle, dragging him through the thickest bushes and trees, everything giving way to its monstrous strength: a tigress accompanied his progress. The united agonies of horror, regret, and fear, rushed at once upon the friends of the unhappy victim. One of them fired on the tiger; he seemed agitated. A second gentleman fired also; and in a few moments after this, the unfortunate gentleman came up to them bathed in blood. Every medical assistance proved vain; and he expired in the space of twenty-four hours, having received such deep wounds from the teeth and claws of the animal as rendered his recovery impossible. It is remarkable, that a large fire, consisting of ten or twelve whole trees, was blazing near the party at the time when this accident took place, and ten or more of the natives were with them. "We had but just reached our boat from the shore," says an eye witness, "when the tigress made her appearance, almost raving mad, and remained on the sand all the time we continued in sight."

Information was brought to the 1st battalion of the 4th regiment of native infantry, at Kaira, commanded by Captain Hull, that a tiger had committed great devastation in the neighbourhood. Captain Hull immediately formed a party for its destruction; and in the course of the pursuit, the retreat of two of the ferocious animals was discovered in a thick jungle near a village. One of them escaped; the other, a tigress, crossed the bed of a river, and in her flight was struck by two well-directed shots.—The pursuit was continued with spirit, and after a long search a sepoy traced the place of her concealment. The

party advanced towards the spot, but, in the way, on approaching the edge of a deep ravine, the animal suddenly burst upon their view, and, with a tremendous roar, made a spring at Captain Hull, who was in front of some of his sepoy. Seeing the imminent peril of their commanding officer, with one accord they rushed forward, and received the tigress on their bayonets, crying, "*Save the Pultad Ka nuseeb Kawind*,"* and firing at her at the same time. The furious animal, although wounded by several shots, and with her tongue pierced by a bayonet, completed her spring, ripped up the pantaloons and boot of Captain Hull, broke the leg of a sepoy, and then fell with them and another sepoy into an adjoining ravine, where, after receiving five balls in her shoulder, she met from her gallant assailants with the *coup-de-grace* (the death-blow): she measured ten feet in length.

The ship-carpenter, who came over with the tiger, brought from Bengal, in 1791, by the Pitt East Indiaman, after an absence of more than two years came to the Tower to see him. The animal instantly recognized his former acquaintance, rubbed himself backward and forward against the grating of his den, and appeared highly delighted. When the man was suffered to enter its den, the emotions of the animal seemed roused in the most grateful manner. He rubbed against him, licked his hands, fawned upon him like a cat, and in no respect attempted to injure him. The man remained there for two or three hours; and he at last began to imagine there would be some difficulty in getting out alone. Such was the affection of the animal toward his former friend, and so close did he keep to his person, as to render his escape almost impracticable. With some care, however, he got the tiger beyond the partition of the two dens; and the keeper, watching his opportunity, dexterously closed the slide, and thus separated them.

This tiger, when on its voyage to England, was so domestic as to admit of every kind of familiarity from the people on board the ship. It frequently slept with the sailors in their hammocks, and would suffer two or three of them to lay their heads on its back, as upon a pillow, while it lay stretched on the deck. It would run out on the bowsprit, climb about the ship like a cat, and perform many other tricks with amazing agility.

Lieutenant White, who published in America the

* The Fortune and Father of the Corps.

"History of a Voyage to the China Sea," gives the following account of a tigress, which measured five feet in length, and three feet in height, and was beautifully striped. She was presented to him by the viceroy of Saigon, which is situated at the foot of the hilly country that divides Cambodia from Siam.

"In Saigon, where dogs are 'dog cheap,' we used to give the tigress one every day. They were thrown alive into her cage, when, after playing with her victim for a while, as a cat does with a mouse, her eyes would begin to glisten, and her tail to vibrate, which were the immediate precursors of death to the devoted little prisoner, which was invariably seized by the back of the neck, the incisors of the sanguinary beast perforating the jugular arteries, while she would traverse the cage, which she lashed with her tail, and suck the blood of her prey, which hung suspended from her mouth.

"One day a puppy, not at all remarkable, or distinguishable in appearance from the common herd, was thrown in, which immediately, on perceiving his situation, set up a dismal yell and attacked the tigress with great fury, snapping at her nose, from which he drew some blood. The tigress appeared to be amused with the puny rage of the puppy, and with as good-humoured an expression of countenance, as so ferocious an animal could be supposed to assume, she affected to treat it all as play; and sometimes spreading herself at full length on her side, at others, crouching in the manner of the fabled sphynx, she would ward off with her paw the incensed little animal, till he was finally exhausted. She then proceeded to caress him, endeavouring by many little arts to inspire him with confidence, in which she finally succeeded, and in a short time they lay down together and slept. From this time they were inseparable; the tigress appearing to feel for the puppy all the solicitude of a mother, and the dog, in return, treating her with the greatest affection; and a small aperture was left open in the cage by which he had free ingress and egress. Experiments were subsequently made, by presenting a strange dog at the bars of the cage, when the tigress would manifest great eagerness to get at it; her adopted child was then thrown in, on which she would eagerly pounce; but, immediately discovering the cheat, she would caress it with great tenderness."

Very obstinate combats sometimes take place between

the tiger and the elephant. M. D'Obsonville saw one in the camp of Hyder Ali. The tiger, not yet of full strength (for he was not more than four feet high), was brought into the area, and fastened with a chain to a stake, round which he could turn freely. On one side, a strong and well-taught elephant was introduced by his keeper. The amphitheatre was enclosed by a treble rank of lance-men. The action, when it commenced, was extremely furious; but the elephant, after receiving two deep wounds, proved victorious.

The following relation, taken from an American paper, is said to have been given by the captain of a Guinea ship:—"The bosom of the ocean was extremely tranquil; and the heat, which was now intolerable, had made us so languid, that almost a general wish overcame us, on the approach of the evening, to bathe in the waters of Congo: however, myself and Johnson were deterred from it from the apprehension of sharks, many of which we had observed in the progress of our voyage, and these enormously large. At length, Campbell alone, who had been making too free with his liquor-case, was obstinately bent on going overboard; and although we used every means in our power to persuade him to the contrary, he dashed into the watery element, and had swam some distance from the vessel, when we on deck discovered an alligator, making towards him, from behind a rock that stood at a short distance from the shore. His escape I now considered impossible, and asked Johnson how we should act: he like myself affirmed the impossibility of saving him, and instantly seized upon a loaded carbine to shoot the poor fellow before he fell into the jaws of the monster. I did not however consent to this, but waited with horror the tragedy we anticipated; yet willing to do all in our power, I ordered the boat to be hoisted, and we fired two shots at the approaching alligator, but without effect. The report of the piece, and the noise of the blacks from the sloop soon made Campbell acquainted with his danger, and he saw the creature making for him, and with all the strength and skill he was master of made for the shore. And now the moment arrived in which a scene was exhibited beyond the power of my humble pen to describe. On approaching within a short distance of some canes and shrubs, that covered the bank, while closely pursued by the alligator, a fierce and ferocious tiger sprang towards him, at the instant the jaws of his first enemy was open to devour him.

At this moment Campbell was preserved. The eager tiger, by overleaping him, encountered the gripe of the amphibious monster. The water was coloured with the blood of the tiger, whose efforts to tear the scaly covering of the alligator were unavailing, while the latter had also the advantage of keeping the tiger under the water, by which the victory was soon obtained, for the tiger's death was now effected: they both sunk to the bottom, and we saw no more of the alligator. Campbell was recovered and conveyed on board; and the moment he leaped on the deck, fell on his knees, and returned thanks to God who had protected him."

The PANTHER.

THE panther is more ferocious and untameable even than the tiger. Like that animal he lurks among the bushes, and springs unawares upon his prey, which he pursues even into the trees. An instance is recorded by Poiret, of a Moor, who was pursued by a wounded panther. He escaped only by the stratagem of throwing part of his clothes on a bush, as he passed by. These the infuriated animal sprang upon, and tore into a thousand fragments.

The following is the mode generally adopted to destroy the panther:—A large piece of flesh is suspended as a bait upon a tree, in the neighbourhood of which the hunter has erected a hut for his own concealment. The panther, attracted to the spot by the smell, whilst in the act of seizing it, is mortally wounded by the unerring aim of the hunter, who, on the following day, and not before, ventures from his hiding place, and with the help of his dog traces out his retreat. If the animal be still alive, the dog almost inevitably falls a sacrifice to his rage, but not till having by his cries warned his master of the danger; but if he be dead, as most commonly is the case, the man carries off his prize unmolested.

The LEOPARD.

SIR ASHTON LEVER kept a leopard in a cage at Leicester House, which was so tame as always to appear highly pleased by caresses and attention, purring and

rubbing its sides against the cage like a cat. But this animal is in general very ferocious and untameable. It makes dreadful havoc, sometimes, amongst the herds and flocks which graze on the plains of its native land. In 1708, a male and female leopard, with three young ones, entered, we are told by Kolben, a sheep-fold at the Cape. They killed nearly a hundred sheep, and regaled themselves with the blood. When the old ones were satiated, they tore a carcase into three pieces, and gave one piece to each of their offspring. They then took each a whole sheep, and thus laden, began to move off; but having been observed, they were way-laid on their return, and the female and three young ones killed: but the male succeeded in making his escape.

Very similar to this animal are the OUNCE, and the HUNTING LEOPARD, both of which are tamed in the countries they inhabit, and trained to the chase, like dogs in Europe.

The ounce is so small in Persia, that the Persians carry them on horseback, on small leathern pads made for the purpose. The huntsman no sooner perceives a gazelle or antelope within a proper distance, than he makes his ounce descend, and it generally takes its prey in five or six leaps.

The HUNTING LEOPARD, which is an Indian animal, is used in the chase of antelopes. It is carried in a kind of small waggon, chained and hooded, lest, on approaching the herd, it should be too precipitate, or should not make choice of a proper animal. When first unchained, it does not immediately spring towards its prey; but winds, with the utmost caution, along the ground, stopping at intervals, and carefully concealing itself till a favourable opportunity offers: it then darts on the herd, and overtakes them by the rapidity of its bounds.

The PUMA, or SOUTH AMERICAN LION.

THE puma, although a ferocious, is a very cowardly animal. Its mode of seizing its prey resembles that of the cat. It conceals itself amongst the shrubs and bushes, till it obtains a favourable opportunity, when at one bound it fastens itself on the back of its prey, and in a few minutes tears it to pieces. It then sucks the blood, and devours the flesh of the breast, after which it carries the remainder into the nearest wood, where it conceals it

amongst the leaves for a leizure meal. But so great is his cowardice, that the appearance of a woman, or even of a child, are quite sufficient to make the puma fly and abandon his prey. The ass frequently beats him away with his heels. Cows, when he appears, form themselves in a circle round their calves, repel his attack with their horns, and often destroy him.

The puma is said to be a very tameable animal. M. Buffon mentions one which was accustomed to suffer little children to mount upon its back, without manifesting the least signs of resentment.

Similar in all its habits and propensities to the puma, is the JAGUIR, or SOUTH AMERICAN TIGER. Few of the South American animals are singly a match for him, except the enormous snakes of the Savannahs, which crush and destroy him, by entwining themselves round his body. Yet his cowardice is so great, that he may be put to flight even by a shout. He is nevertheless sometimes very bold and persevering. M. Sonnini and his party were tormented by one of these animals, in the forests of Guiana, for three successive nights; it avoided all attempts to destroy it, but finding that no opportunity was given him of doing any kind of mischief, he at last left them, venting a most dismal howl at his departure.

The CAT.

THE cat, though not so faithful as the dog, is very little less sagacious. In 1821, a shoemaker in the south side of Edinburgh, while engaged in cleaning a cage in which he kept a lark, left the door of the cage open, of which the bird took advantage, and flew away by a window at which its owner was then standing. The lark being a favourite, its loss was much lamented. But it may be imagined what was the surprise of the house when, about an hour after, a cat, belonging to the same person, made its appearance with the lark in its mouth, which it held by the wings over the back, in such a manner that the bird had not received the least injury. The cat, after dropping it on the floor, looked up to those who were observing her, and mewed, as if to attract attention to the capture. The lark now occupies its wiry prison, with the same noisy cheerfulness as before its singular adventure.

Instances are not uncommon of cats having returned of

their own accord to places from whence they have been carried, although a distance of many miles. The following may serve as an instance:—Two elderly ladies, who for many years resided in Leeds, had a favourite cat, which was brought up by them from a kitten. One of the ladies dying, the other shortly afterwards shut up her house at Leeds, and went to reside at Cowley, in Ecclesfield. She brought her cat with her in a small hamper, which was placed under the seat of the carriage. The cat remained at her new residence very quietly for nearly two months, when a servant one day beat her for some fault. On this affront she ran away, and in a day or two afterwards was seen at Leeds by a neighbour, sitting and watching at the kitchen-door of the house lately occupied by her mistress. There she remained three days without intermission. On the evening of the third day she came into the neighbour's house, who left her in the kitchen all night. There the servant found her the following morning, but on opening the kitchen-door she ran out, and returned to her mistress's habitation in a most deplorable state, being almost reduced to a skeleton, and so feeble for several days that she could scarcely take any food. One eye appeared much inflamed, as if from cold, and since then she has utterly lost the sight of it. The cat was absent about ten days. The distance from Cowley to Leeds, through Barnsley and Wakefield, is twenty-eight miles.

The cat has been often known to nourish the young of other animals with as much tenderness as she would her own. A friend of the Rev. Mr. White, of Selborne, had a young leveret brought to him, just at the time at which his cat kittened, and had her offspring destroyed. The leveret was fed by the servants with milk from a spoon; but it was soon lost, and it was supposed that some dog or cat had made it his prey. About a fortnight afterwards, as its owner was sitting in his garden, at the dusk of evening, he observed his cat, with tail erect, trotting towards him, and calling, as a cat calls to her kitten, to something behind her. This proved to be the leveret, which the cat had nourished in place of her own offspring, and continued to support with great affection. A boy brought to Mr. White three young squirrels, which had been taken from their nest. He put them under a cat which had recently lost her kittens, and she nursed and

suckled them with as much affection as though they had been her own offspring.

The following anecdote is related by Dr. John Mason Good:—"A favourite cat, that was accustomed from day to day to take her station quietly at my elbow, on the writing-table, sometimes for hour after hour, whilst I was engaged in study, became at length less constant in her attendance, as she had a kitten to take care of. One morning she placed herself in the same spot, but seemed unquiet; and, instead of seating herself as usual, continued to rub her furry sides against my hand and pen, as though resolved to draw my attention, and make me leave off. As soon as she had accomplished this point she leaped down on the carpet, and made towards the door with a look of great uneasiness. I opened the door for her as she seemed to desire; but instead of going forward, she turned round, and looked earnestly at me, as though she wished me to follow her, or had something to communicate. I did not fully understand her meaning, and being much engaged at the time, shut the door upon her that she might go where she liked. In less than an hour afterwards, she had again found an entrance into the room, and drawn close to me; but instead of mounting the table, and rubbing herself against my hand as before, she was now under the table, and continued to rub herself against my feet; on moving which, I struck them against a something which seemed to be in their way; and on looking down beheld, with equal grief and astonishment, the dead body of her little kitten covered over with cinder-dust, and which, I supposed, had been alive and in good health. I now entered into the entire train of the afflicted cat's feelings. She had suddenly lost the nursling she doted on, and was resolved to make me acquainted with it, assuredly that I might know her grief, and probably also that I might inquire into the cause; and finding me so dull to understand her expressive motioning that I would follow her to the cinder-heap on which the dead kitten had been thrown, she took the great labour of bringing it to me herself, from the area on the basement floor, and up a whole flight of stairs, and laid it at my feet. I took up the kitten in my hand, the cat still following me, made inquiry into the cause of its death, which I found, upon summoning the servants, to have been an accident in which no one was much to blame";

and the yearning mother having thus obtained her object, and gotten her master to enter into her cause, and divide her sorrows with her, gradually took comfort, and resumed her former station by his side."

A cat belonging to Dr. Coventry, the professor of agriculture in Edinburgh, had no blemish at its birth, but lost its tail by accident when it was young. It had many litters of kittens; and in every litter, one or more were destitute of either the whole or a part of the tail.

The cat in its wild state is a very fierce and destructive animal. When wounded, it has been often known to attack its pursuers, and it will always defend itself with desperate resolution, when driven to extremities. At Baruboro', a village between Doncaster and Barnsley, in Yorkshire, there is a tradition extant, of a conflict that once took place between a man and a wild cat. The fight is reported to have begun in an adjacent wood, and to have been continued from thence into the porch of the church, where it ended fatally to both combatants. A rude painting in the church commemorates the event; and the accidentally natural red tinge of some of the stones is considered as stains of blood which still remain.

The CAPE CAT is a very beautiful animal; and, although naturally fierce and ravenous, it may be easily rendered tame and domestic. Dr. Forster, who was at the Cape in 1795, saw one of these animals about nine months old, which was, in its manners and economy, similar in every respect to the domestic cat. After he had fed it a few times, it followed him about like a tame cat, and was equally fond of being noticed and caressed.

The ANGORA CAT (the *Felis Angorensis* of Linnaeus, and the *Chat d'Angora* of Buffon), is one of the most beautiful of the cat tribe. M. Sonnini, when in Egypt, had one that was tame. It was entirely covered with long silky hairs; its tail formed a magnificent plume; not a spot or a single dark shade tarnished the dazzling white of its skin. Its nose and lips were of a delicate rose colour. Of its two large sparkling eyes, one was light yellow, and the other of a fine blue colour. Its attitude and movements were exceedingly graceful. So gentle was it, that how ill soever any one used it, it never made use of its claws and it would even lick the hand which tormented it.

In M. Sonnini's solitary moments, this animal kept constantly by his side; and frequently interrupted him, in the

midst of his labours or meditations, by little caresses extremely affecting. She generally followed him in his walks; and when he was absent, she sought and called for him incessantly with the utmost inquietude. She recognized his voice at a distance, and seemed on each fresh meeting with him to feel increased satisfaction. "How was the expression of her attachment," says he, "depicted in her countenance! how many times have her tender caresses made me forget my troubles, and consoled me in my misfortunes! my beautiful and interesting companion, however at length perished. After several days of suffering, during which I never forsook her, her eyes constantly fixed on me, were at length extinguished, and her loss rent my heart with sorrow."

THE WEASEL TRIBE.

The ICHNEUMON.

THE Ichneumon is a very valuable animal in the hot countries which abound in snakes and other noxious reptiles. It is frequently domesticated, and kept in houses for the purpose of destroying the rats and mice. In a wild state it frequents the banks of rivers, and is said to swim and dive occasionally in the manner of an otter. When it sleeps, it folds itself up like a ball, and is not easily awakened. It slides along the ground almost like a serpent, and springs with great agility upon its prey.

The proofs of sagacity which have been observed in the ichneumon are truly astonishing. On seeing a snake ever so large, it will instantly dart on it, and seize it by the throat, provided it be in an open place, where he has an opportunity of running to a certain herb, which he knows to be an antidote against the venom of the reptile. An experiment was tried at Columbo, to ascertain the reality of this circumstance. The ichneumon was first shown the snake in a close room. On being let down to the ground, he did not discover any inclination to attack his enemy, but ran about the room to discover if there were any hole by which he could get out. On finding none, he returned hastily to his master, and placing himself in his bosom, could not by any means be induced to

quit it, or to face the snake. On being carried out of the house, and laid near his antagonist in an open place, he instantly flew at it, and destroyed it. He then suddenly disappeared for a few minutes, and again returned as soon as he had found the herb, and eaten of it.

M. D'Obsonville brought up a tame ichneumon, which he fed when very young with milk, and afterwards with baked meat mixed with rice. He once brought it a small water-serpent alive, to ascertain how its instinct would lead it to act against a creature with which it was wholly unacquainted. Its first emotion seemed to be astonishment mixed with anger, for its hair became erect; but in an instant afterwards, it slipped nimbly behind the reptile, and seized upon and crushed its head between its teeth.

The STRIATED WEASEL, or SKUNK.

THIS animal is a native of America, and is chiefly remarkable on account of the insupportably strong foetid smell which it emits, when attacked or irritated. This odour may be perceived at an amazing distance. Cattle that are near are so incommoded by it, as to utter the most dreadful bellowings; and, although dogs are trained to hunt them, yet they are obliged to relieve themselves by frequently thrusting their noses into the ground. When one of them is killed or irritated near a dwelling, the whole place becomes infected, and all the rooms, with contents, are so completely impregnated with the vapour, as to render them unfit for use for a considerable length of time afterwards. Professor Kalm relates, that a striated weasel being one day perceived in his cave, a woman unthinkingly attacked and killed it. The whole place was instantly filled with so dreadful a stench, that the woman was taken ill, and remained so for several days.

The HONEY WEASEL, or RATEL.

THIS animal, which is a native of the Cape of Good Hope, is formed by nature to be the enemy of bees: and his mode of discovering their nests is indicative of superior instinct. Towards sun-set, he issues forth from his habitation, for he is aware that at that part of the day

the bee is in general pursuing its homeward course. He sits upright near his hole, and holds one of his paws before his eyes to modify the rays of the sun, and to procure a distinct view of his object. As soon as he perceives any bees flying by, he follows them closely until he arrives at their nest. His skin is so thick and tough, as to be not only a complete defence against the sting of its insect enemies, but even against the teeth of the hounds which are employed to hunt him. Instances have been known, when such a number of hounds as would be sufficient to tear a moderate sized lion to pieces, have been obliged to leave the ratel dead only in appearance.

The CIVET.

THE civet is a very active and voracious animal; it jumps and runs like a cat, and feeds on almost all kinds of small animals and birds. M. Barbot had one in a cage at Guadaloupe, which was accidentally kept without food for a whole day: on the ensuing morning it gnawed its way through the cage, came into the room where M. Barbot was writing, and after staring about with its sparkling eyes for a few seconds, made a leap of five or six feet at a parrot that was perched on a piece of wood, put into the wall for the purpose; and before its master could run to its relief, the civet had torn its head from its body.

The MARTIN.

THE retreats of the COMMON MARTIN, and the PINE MARTIN, or as some term it the PINE WEASEL (the *Viverra foina*, and the *Viverra Martes*, of Shaw, the *Mustela foina*, and *Mustela Martes*, of Linnæus, and *la Fouine* and *la Marte* of Buffon), are the hollows of trees, of which they have previously dispossessed the squirrel, and other small animals and birds. The pine martin is hunted in the north for their furs, of which above twelve thousand are annually imported into England from Hudson's Bay, and more than thirty thousand from Canada.

Gessner kept a tame pine martin, which was extremely entertaining and playful. It was peculiarly fond of a dog with which it had been bred up, and would play with it like a cat, lying on its back, and pretending to bite him.

M. de Buffon had also a tame martin, but, although it had lost its ferocity, it discovered no marks of attachment, and continued so wild as to require chaining. It sometimes slept for two days without intermission. It frequently escaped from its confinement: at first it returned after some hours' absence; but by degrees its time of absence increased, and at last it took a final departure.

The SABLE.

THE two sables which M. Genelin saw, belonging to the governor of Tobolski, were in some measure domesticated. Whenever they saw a cat, they rose on their hind legs to prepare for combat. In the night they were extremely restless and active; but, during the day, and particularly after eating, they slept so soundly, as to bear pushing, shaking, or even pricking, without being awakened. The manner in which the natives of Kamtschatka take these animals, is as follows:—They follow their track in the snow till they have detected his covert, which is generally a burrow in the earth. As soon as the sable is aware of its pursuers, it escapes into the nearest hollow tree, which the hunters immediately surround with a net, and force the animal to abandon his retreat, either by cutting down or firing the tree, when it falls into the net, and is killed. The skin of the sable is the most valuable of any animal of equal size. One skin, of no more than four inches broad, has been valued at fifteen pounds; but the general price is from one pound to ten pounds, according to the quality.

The POLECAT, or FITCHET.

THE polecat makes less noise, but does more mischief in farm-yards than the martin. He is exceedingly agile and nimble, and will make very long springs. He lives generally during the summer in woods, thick brakes, and about rabbit warrens, where, if it cannot find a hole to suit its purpose, it forms one for itself in the ground, about two yards in length. This animal commits terrible devastation on the game and rabbits. A polecat has been known, when the narrowness of the entrance into a farm-yard has hindered him from conveying the fowls away, to eat the

brain on the spot, and carry off the heads to his place of concealment, leaving the bodies behind. The polecat will also sometimes prey upon fish. During a severe storm a polecat was traced in the snow, from the side of a rivulet to its hole at some distance. On examining this hole, it was found to contain eleven eels, the fruits of some of the animal's nocturnal excursions.

The COMMON WEASEL.

M. DE BUFFON supposed the weasel to be untameable; but Mademoiselle de Laistre, in a letter written to him on this subject, gives the following interesting account of a weasel which she had tamed :—" If I pour some milk into my hand," says she, "it will drink a good deal; but if I do not pay it this compliment, it will scarcely take a drop. When satisfied, it generally goes to sleep. My chamber is the place of its residence; and I have found a method of dispelling its strong smell by perfumes. By day it sleeps in a quilt, into which it gets by an unsewn place, which it has discovered on the edge; during the night, it is kept in a wired box or cage, which it always enters with reluctance, and leaves with pleasure. If it be set at liberty before my time of rising, after a thousand little playful tricks, it gets into my bed, and goes to sleep in my hand, or on my bosom. If I am up first, it spends a full half-hour in caressing me; playing with my fingers like a little dog, jumping on my head and on my neck, and running round on my arms and body, with a lightness and elegance which I have never found in any other animal. If I present my hands at the distance of three feet, it jumps into them without ever missing. It exhibits great address and cunning to compass its ends, and seems to disobey certain prohibitions merely through caprice. During all its actions, it seems solicitous to divert, and to be noticed; looking at every jump, and at every turn, to see whether it be observed or not. If no notice be taken of its gambols, it ceases them immediately, and betakes itself to sleep; and even when awakened from the soundest sleep, instantly resumes its gaiety, and frolics about in as sprightly a manner as before. It never shows any ill humour, unless when confined, or teased too much; in which case it expresses its displeasure by a sort of murmur, very different from that which it utters when pleased.

"In the midst of twenty people, this little animal distinguishes my voice, seeks me out, and springs over every body to come at me. His play with me is the most lively and caressing imaginable. With his two little paws he pats me on the chin, with an air and manner expressive of delight. This, and a thousand other preferences, show that his attachment to me is real. When he sees me dressed for going out, he will not leave me, and it is not without some trouble that I can disengage myself from him; he then hides himself behind a cabinet near the door, and jumps upon me as I pass with so much celerity, that I often can scarcely perceive him.

"He seems to resemble a squirrel in vivacity, agility, voice, and his manner of murmuring. During the summer, he squeaks and runs about all night long; but since the commencement of the cold weather, I have not observed this. Sometimes, when the sun shines, while he is playing on the bed, he turns and tumbles about, and murmurs for a while.

"From his delight in drinking milk out of my hand, into which I pour a very little at a time, and his custom of sipping the little drops and edges of the fluid, it seems probable that he drinks dew in the same manner. He seldom drinks water, and then only for want of milk, and with great caution, seeming only to refresh his tongue once or twice, and even to be afraid of that fluid. During the hot weather it rained a good deal; I presented to him some rain-water in a dish, and endeavoured to make him go into it, but could not succeed. I then wetted a piece of linen cloth in it, and put it near him, and he rolled upon it with extreme delight.

"One singularity in this charming animal is his curiosity. It is impossible to open a draw or a box, or even to look at a paper, but he will examine it also. If he get into any place where I am afraid of permitting him to stay, I take a paper or a book, and look attentively at it; on which he immediately runs upon my hand, and surveys with an inquisitive air whatever I happen to hold. I must further observe, that he plays with a young cat and dog, both of considerable size; getting about their necks, backs, and paws, without their doing him the least injury."

THE OTTER TRIBE.

The Common Otter.

THE otter, when taken young, may, notwithstanding its ferocious disposition, be rendered completely tame. Their principal use, when tamed, is for the catching of fish. They are first taught to take in their mouths a truss made of leather, stuffed with wool, and shaped like a fish; to drop it at the word of command, to run after it when thrown forward, and to bring it to their master. After this they are taught to fetch real fish, that are thrown dead into the water. From dead fish they are taken to living ones, until they are completely instructed in the fishing art. An otter, thus instructed, will catch fish enough for himself and a whole family. Dr. Goldsmith says, that he has seen an otter go to a gentleman's pond at the word of command, drive the fish into a corner, and seizing upon the largest of the whole, bring it off, and give it to his master.

An otter was brought up tame by James Campbell, near Inverness, which would follow him about wherever he wished. It was frequently employed in catching fish, and would sometimes take eight or ten salmon in a day. If not prevented, it always made an attempt to break the fish behind the fin next to the tail. When tired, it refused to fish any longer, and was rewarded with as much fish as it could devour, after having eaten which, it always fell asleep, and in that state was carried home.

THE SEA OTTER, in its habits, is a harmless and inoffensive animal. They exhibit a surprising degree of attachment to their offspring: they will never desert them, and will even starve themselves to death on being robbed of them. They live in pairs, and are very constant to each other. They have been observed to fondle their young by tossing them up, and catching them with their fore-paws: and they often swim with them on their backs, when they are too young to be able to swim themselves. They are very sportive, embrace each other, and seem to kiss. When attacked they make no resistance, but endeavour to save themselves by flight. But when they are pursued so close as to find it impossible to escape, they will turn round, and scold and grin like a cat, and finally lay down, and quietly await their fate. They are found

on the coast of Kamtschatka, in the adjacent islands, and on the opposite coast of America. Their skins are of great value, and form a considerable article of export from Russia.

OF THE BEAR TRIBE.

The COMMON BEAR.

THE common bear varies in colour in different parts. Some are black, some are brown, and others grey: they differ, too, in several other particulars. The brown kind lives chiefly on vegetables, while the black bear feeds chiefly on animal food. The black bears are so much attached to each other, that the hunter never dare to fire at a young cub, while the old one, is near, as she becomes so enraged, that she will avenge it or die. And when the old bear is killed, the cubs will remain by her side after she is dead, and exhibit by their cries and actions the most poignant affliction.

In the expedition to explore the Missouri, Captain Clarke and one of his hunters encountered one of the largest brown bears the party had ever seen. As they fired, he did not attempt to attack, but fled with a most tremendous roar; and such was his extraordinary tenacity of life, that although he had five balls passed through his lungs, and five other wounds, he swam more than half across the river to a sand-bar, and survived twenty minutes. He weighed between five and six hundred pounds at least, and measured eight feet seven inches and a half from the nose to the extremity of the hind feet, five feet ten inches and a half round the breast, three feet eleven inches round the neck, one foot eleven inches round the middle of the fore-leg, and his talons, five on each foot, were four inches and three eights in length. It differed from the common black bear in having its talons much longer and more blunt; its tail shorter; its hair of a reddish or bay-brown, longer, finer and more abundant; its liver, lungs, and heart, much larger even in proportion to its size, the heart particularly being equal to that of a large ox; its maw ten times larger; besides fish and flesh, it fed on roots and every kind of wild fruit.

One of the men who had been ill, and suffered to walk

on shore, came running to the boats with loud cries, and every symptom of terror and distress ; for some time after he had been taken on board, he was so much out of breath as to be unable to describe the cause of his anxiety, but he at length said, that about a mile and a half below, he had shot a brown bear, which immediately turned, and was in close pursuit of him ; but the bear being badly wounded, could not overtake him. Captain Lewis, with seven men, immediately went in search of him, and having found his track, followed him by the blood for a mile, and found him concealed in some thick brushwood, and shot him with two balls through the skull. Though somewhat smaller than that recently killed, he was a monstrous animal, and a most terrible enemy ; the man had shot him through the centre of the lungs, yet he had pursued him furiously for half a mile, then returned more than twice that distance, and with his talons had prepared himself a bed in the earth two feet deep, and five feet long, and was perfectly alive when they found him, which was at least two hours after he had received the wound. The wonderful power of life which these animals possess renders them dreadful ; their very track in the mud or sand, which has been sometimes found eleven inches long, and seven and a quarter wide, exclusive of the talons, is alarming. There is no chance of killing them by a single shot, unless the ball goes through the brain, and this is very difficult, on account of two large muscles which cover the side of the forehead, and the sharp projection of the centre of the frontal bone, which is also thick.

The men in the hindmost canoes discovered a large brown bear lying in the open grounds, about three hundred paces from the river ; six of them, all good hunters, immediately went to attack him, and, concealing themselves by a small eminence, came unperceived within forty paces of him ; four of the hunters now fired, and each lodged a ball in his body, two of them directly through his lungs ; the furious animal sprung up, and ran, open-mouthed, upon them ; as he came near, the two hunters who had reserved their fire gave him two wounds, one of which, breaking his shoulder, retarded his motion for a moment ; but before they could reload, he was so near that they were obliged to run to the river, and before they reached it he had almost overtaken them ; two jumped into the canoe ; the other four separated, and concealing themselves in the willows, fired as fast as each could

reload: they struck him several times, but instead of weakening the monster, each shot seemed only to direct him towards the hunters, till at last he pursued two of them so closely, that they threw aside their guns and pouches, and jumped down a perpendicular bank of twenty feet into the river; the bear sprang after them, and was within a few feet of the hindermost, when one of the hunters on shore shot him in the head, and finally killed him; they dragged him to the shore, and found that eight balls had passed through him in different directions.

While the Carcass frigate was locked in the ice, early one morning three bears were descried directing their course over the frozen ocean towards the ship. They had, no doubt, been invited by the scent of some blubber of a sea-horse the crew had killed a few days before, which had been set on fire, and was burning on the ice at the time of their approach. They proved to be a she bear and her two cubs; but the cubs were nearly as large as the dam. They ran eagerly to the fire, and drew out of the flames part of the flesh of the sea-horse that remained unconsumed, and ate it voraciously. The crew threw great lumps of the flesh of the sea-horse from the ship upon the ice, which the old bear fetched away singly, laid every lump before her cubs as she brought it, and dividing it, gave each a share, reserving but a small portion for herself. As she was fetching away the last piece, some of the crew levelled their muskets at the cubs, and shot them both dead; and in her retreat wounded the dam, but not mortally. It would have drawn tears of pity from any but unfeeling hearts, to mark the affectionate concern expressed by this poor beast in the dying moments of her expiring young. Though she was sorely wounded herself, and could but just crawl to the place where they lay, she carried the last lump of flesh she had fetched, as she had done the others, and dividing it, laid it before them. When she saw they refused to eat, she put her paws first upon one and then upon the other, and endeavoured to raise them up: all this while it was affecting to hear her moans; but when she found she could not stir them by these endeavours, she went to some distance from them, looked back and moaned. This not availing her to entice them away, she returned, and smelling round them, began to lick their wounds. She went off a second time as before, and, having crawled a few paces, looked again behind her, and for some time stood moaning. But still her cubs not rising

to follow her she returned to them again, and with signs of inexpressible fondness went round one and round the other, pawing them and moaning. Finding, at last, that they were cold and lifeless, she raised her head towards the ship, and growled a curse upon their murderers, which they returned with a volley of musket balls. She fell between her cubs, and died licking their wounds.

In Kamtschatka, the bears are much less wild and ferocious, than they generally are in most other parts of the world. They are there so familiar, that even the women and girls, when gathering herbs or turf, are not at all disturbed by their appearance. They have never been known to attack a man except when suddenly roused out of their sleep. It would be difficult to name an animal so generally serviceable to man as the bear is to the Kamtschatdale. Of the skin they make beds, covertures, caps, and gloves, as well as collars for their sledge dogs. Those who go upon the ice for the capture of marine animals, make their shoe-soles of the same substance, which never slip upon the ice. Its fat is a savoury and wholesome food, and when melted, supplies the place of oil. The flesh is esteemed a great delicacy. The intestines, when cleansed and properly scraped, are worn by the fair sex, as masks, to preserve their faces from the effects of the sun-beams.

From the bear the Kamtschatdales learn, by observing what herbs it uses when wounded or disordered, all their knowledge of physic and surgery. These animals are also admitted by the Kamtschatdales to be their dancing-masters; and the gestures and attitudes of that people bear abundant evidence to the fact.

The custom of exhibiting dancing bears in England, may be traced to the fourteenth century. This animal, greatly to the praise of our ingenious ancestors, was probably selected to display the graces of the "light fantastic toe," from its total incapacity. The thing, as Dr. Johnson once said, is not done well, but we are surprised to see it done at all.

An interesting account is given in the supplementary writings of Buffon, and in the notes of Sonnini, of some bears that were brought up in a semi-domestic state at Berne, in Switzerland, and which were kept in large square dens dug in the earth, and faced at the sides and bottom with stones. When they had been there about six years, they began to breed. The female produced at the first litter only one, but afterwards from two to three at a time.

When newly born, the young ones were very unlike their parents both in shape and colour. Their body was nearly round, and their snout somewhat sharp-pointed: their colour was yellow, and white about the neck. They remained blind for four weeks. At first they were from the muzzle to the base of the tail, about eight inches long; but increased, in the space of three months, to the length of fourteen or fifteen inches. Before they were full grown, they cast their yellow and white hair, and assumed the colour of their parents.

The AMERICAN BEAR.

THIS animal (the *ours noir de l'Amérique* of Buffon), is found in considerable quantities in the northern districts of America. It differs from the European bear, principally in being smaller, in having a longer head, more pointed nose, and longer ears, with smoother, blacker, and more glossy hair.

The hunting of the bear is a matter of no small consequence with the native tribes of northern America. It takes place generally about the end of December, and is undertaken with great ceremony. Some great warrior gives a general invitation to all the hunters, who, after eight days of strict fast, and continual singing and invoking of the *manes* of the beasts slain in the preceding chase for their assistance, meet at a great feast which he gives, and at which none dare appear without having previously bathed themselves. At this entertainment they eat very moderately, the master of the feast being employed solely in relating feats done in former chases; and fresh invocations of the *manes* of deceased bears conclude the whole. They then sally forth, equipped as if for war, and painted black; and proceed on their way in a direct line, not allowing rivers, marshes, or any other impediment to arrest their course. They thus drive all the beasts they find towards the hunting ground, where they surround as large a space as they can, and then contract their circle, searching, as they move on towards the centre, every hollow tree or place likely to be the retreat of a bear. When a bear is killed, a lighted pipe of tobacco is put into his mouth, while one of the hunters blow it, and fills the animal's throat with smoke, conjuring its spirit to do no injury to their future hunting. As the beast makes no

reply, they cut out the sting of the tongue, and throw it into the fire ; when, if it crackle and shrivel up, (which it is almost sure to do), they consider it as an omen of good, but if it happen otherwise, they believe that the spirit of the bear is not sufficiently appeased, and consequently that their next chase will be unsuccessful.

The WHITE or POLAR BEAR.

THIS species is an inhabitant of the icy regions of the north, where they are found in immense numbers. It differs from the common bear, in having its head and neck of a more lengthened form, and the body longer in proportion to the bulk. It is sometimes twelve feet in length, and is the strongest and most ferocious of the species.

Some years ago, the crew of a boat belonging to the whale-fishery, shot at a bear at a short distance from them, and severely wounded it. With a most dreadful howl, it instantly ran along the ice towards them. Before he reached the boat, however, a second shot was fired at him, which also hit him. It served but to increase his fury, for he swam to the boat, and placing one of his fore feet upon the gunnel, attempted to get on board. A sailor who was near, cut off the animal's foot, after which it still continued to swim after them till they arrived at the ship, although several shots were fired at him, which all took effect. On reaching the ship, he immediately ascended the deck, and was pursuing the crew into the shrouds, when a shot laid him dead upon the deck.

During summer, the general residence of the white bear is upon the ice-islands of the northern seas, where it forms its den, and produces its young, generally two at a birth. During the winter, they retire and bury themselves deep in the snow, or under the fixed ice of some eminence, and pass in a state of torpidity the long and dismal arctic night, re-appearing only with the return of the sun.

When the bears are carried (as they sometimes are), by the ice to Iceland, they are reduced by hunger to such a state of ferocity, that they attack every thing that comes in their way, both man and beast. But even when in this state, Mr. Horrebow tells us, that the natives are always able to escape their fury, if they can only throw something into their way to amuse them. A glove is, he says, sufficient for the purpose ; for the bear will not stir from it

until he has turned every finger of it inside out, which with so clumsy an animal, must of necessity take up some time.

The WOLVERINE.

THE *wolverine* (the *Ursus Luscus* of Linnæus), is not an uncommon animal in the northern regions of America. It resembles the wolf in size, and the glutton in the figure of its head. The upper and under parts of its body are of a reddish brown colour; the sides are yellowish brown, and a band of this colour crosses the back near the tail, which is long, and of a chesnut colour: the face is black. It is a very slow animal, but extremely strong and savage, and is capable of making resistance against every animal of its own species. The following occurrence will evince the amazing strength of this animal:—A wolverine, at Churchill, on Hudson's Bay, overset the greatest part of a pile of wood, which measured upwards of seventy yards round, to get at some provisions which had been hidden there by the company's servants, when going to the factory to spend the Christmas holidays. This animal had been observed for several weeks lurking about the neighbourhood of their tent, and had committed many depredations on the game caught in their traps and snares, but had always been cunning enough to escape detection. The people thought that they had adopted an effectual mode of securing their provisions, by tying them up in bundles and placing them on the top of the wood pile. To their astonishment, on their return they found the greatest part of the pile overthrown, and the wood very much scattered about, and every thing eatable carried away.

The RACCOON.

M. BLANQUART DES SALINES had a tame raccoon, of which M. de Buffon has given an account. It was very gentle, but showed little attachment to any one. It was very sly and artful, and when unchained, showed often vestiges of its original wildness. It was extremely sensible of ill-treatment. A servant one day gave it two or three lashes with a whip, which it never forgot: whenever it saw him, it flew into a most violent rage, and no

kindness could hinder it from attempting it to spring at him. It shewed no mercy to any fowls, or even young cats, that came within its reach ; it would run unperceived into the court yard, enter the hen roosts, and destroy every fowl that it could get at. It shewed some attachment to a small dog that belonged to the house, but always chastized it severely, when it made too much noise.

The BADGER.

THE following occurrence took place in France, in 1774. Two persons of the village of Chapellatiere, near the Castle of Venours, going to the town of Rouille, in Poitou, found, at the distance of a league from their house, a badger, which their dog had sprung out of a ditch. They killed it with their sticks, and it was resolved that the flesh should go to the hamlet, and that they should divide between them the value of the skin. For want of a rope, they fastened the dead animal to the branch of a tree, and dragged it along. Scarcely had they proceeded a few paces, before one of them turning his head, saw another badger, who followed them with a melancholy air. They stopped, and the mournful animal threw itself upon the dead body of its companion, suffering itself to be drawn away with it. It was thus carried to the village itself, where it was not intimidated by the number of persons who came to see the sight ; the living animal remaining immoveable on the dead one. It was at last given up to the boys, who killed the former, and destroyed both.

The OPOSSUM.

THE opossum is excessively tenacious of life. In North Carolina, there is a well known adage, " If a cat has nine lives, the opossum has nineteen." If it be pursued and overtaken, it will feign itself dead, until the danger is over ; and, according to M. de Pratz, when seized in this condition, it will not exhibit any signs of life, though even placed upon a red-hot iron. When there are any young ones in the pouch of a female, she will suffer herself and them to be roasted alive, before she will give them up.

The KANGUROO.

THE kangaroo generally feeds standing on its four feet, like other quadrupeds. From its general form and structure, it is evident that its chief progressive motion is by leaping; and it has been seen to exceed twenty feet at a time in its leaps, and to bound with ease over obstacles more than nine feet in altitude. These leaps it can repeat so often, as almost to elude the swiftness of the fleetest greyhound. The tail of the kangaroo is a weapon of great strength; with it the animal can strike so violent a blow, as even to break a man's leg. With their claws and teeth they are also able to do considerable hurt.

The kangaroo inhabits burrows underground, and subsists chiefly on grass. They feed in herds of thirty or forty together, and one of the herd is generally observed to be stationed at some distance from the rest, apparently performing the duty of a sentinel, or watch.

The MOLE.

DR. DARWIN gives the following description of the habitations of the common mole, and of the usual modes of catching it:—

“The moles,” he says, “have cities underground, which consist of houses, or nests, where they breed and nurse their young. Communicating with these, are wider and more frequent streets, made by the perpetual journeys of the male and female parents; as well as many other less frequented alleys or by-roads, with many diverging branches which they daily extend, to collect food for themselves or their progeny.

“These animals are most active in the vernal months, during the time of their courtship; and many burrows are at this time made in the earth, for their more easily meeting with each other. And though moles are commonly esteemed to be blind, yet they appear to have some perception of light, even in their subterraneous habitations; because they begin their work as soon as it is light, and consequently before the light of the sun can be supposed to affect them. Hence one method of destroying them consists in attending to them early before sun-rise. At that time the earth or the grass may frequently be seen to

move over them ; and, with a small light spade, their retreat may be cut off by striking this into the ground behind them, and immediately digging them up.

“ The mole suckles four or five, and sometimes six young ones, which are placed considerably deeper in the ground than the common runs ; and the mole-hills near them are consequently larger, and generally of a different colour from the others. These nests are to be dug up ; having first intercepted the road between the mole-hills in the vicinity, to cut off the retreat of the inhabitants.

“ The next important circumstance is, to discover which are the frequented streets, and which the by-roads ; for the purpose of setting subterraneous traps. This is effected by making a mark on every new mole-hill, by a light pressure of the foot, and the next morning observing whether a mole has again passed that way, and obliterated the foot-mark. This is to be done for two or three successive mornings. These foot-marks should not be deeply impressed, lest the animal be alarmed on his return, and thus induced to form a new branch of road, rather than open the obstructed one.

“ The traps are then to be set in the frequented streets, so as to fit nicely the divided canal. They consist of a hollow semi-cylinder of wood, with grooved rings at each end, in which are placed nooses of horsehair, fastened loosely by a peg in the centre, and stretched above ground by a bent stick. When the mole has passed half way through one of these nooses, and removes the central peg in his progress, the bent stick rises by its elasticity and strangles him.”

The mischief which moles occasion in fields and gardens is immense. M. de Buffon, in 1740, planted sixteen acres of land with acorns, the greater part of which were in a short time carried away by these animals. In many of their retreats were found half a bushel of acorns, and in some, even a bushel. After this, he caused a great number of iron traps to be constructed, and in less than three weeks, he caught 1300 moles.

In 1742, moles were so numerous in some parts of Holland, that one farmer caught between five and six thousand.

The HEDGEHOG.

THE following account of the habits of the common hedgehog, in a domestic state, is taken from the *Gentleman's Magazine*. "In June, 1782, a full grown hedgehog was put into a small yard, in which was a border of shrubs and annuals. In the course of a few days he formed, beneath a small holly tree, a hole in the earth, sufficiently large to receive his body. After a while a small shed was built for him, in the corner of the yard, and filled with straw; but the animal would not quit his former habitation until it was covered with a stone. He then took possession of the shed, and every morning carried leaves from a distant part of the border, to stop its mouth. His principal food was raw meat and mice. Of the latter, he would eat six at a time, but never more; and although these were thrown to him dead, he bit them all on the neck, before he began to eat any. He would also eat snails with their shells; but would leave anything for milk, which he lapped exceedingly slow. To this, even if set six or eight yards from his shed, he would almost always come out half an hour before his usual time. If the person who usually fed him, neglected to do so, he would follow him along the yard; and if the door was open, he would even follow him into the house. If meat was put near the mouth of his shed in the day-time, he would sometimes pull it in to eat it. As the weather became colder, he carried more leaves into his shed; and sometimes he would not come out for two or three days successively. About the end of November he died; from want of food, as was supposed, but more probably, from the severity of the weather.

A Mr. Sample, of the Angel Inn, at Felton, in Northumberland, had, in 1799, a hedgehog, which performed the duty of a turnspit, as well, in every respect, as the dog which bears that denomination. It ran about the house in as familiar a manner as any domestic animal, and displayed the greatest and most attentive obedience.

The most common use to which the domesticated hedgehog is applied, is the destruction of cock-roaches and beetles, which it pursues with great avidity. A gentleman in London, whose kitchen was infested with black-beetles, was recommended to procure a hedgehog. He accordingly had one brought, which had been caught in

his garden in the country. At first it was very sullen, and remained rolled up, refusing even the food that was offered to it. By degrees, however, it became so far domesticated as to take its food out of the hand of any one who offered it, and to be quite familiar to the cats and dogs. It was usually kept in a basket until the family had gone to bed, when it was removed thence into the kitchen. It then sought its bread and milk, and tasted it; after which, it immediately ran under a closet door, which it had chosen for a retreat. Finding all safe, it returned and retreated several times, until it had finished its repast. In a short time, scarcely a beetle was left in the house, and it is supposed to have also destroyed the mice.

The PORCUPINE.

THE porcupine, in a wild state, generally inhabits subterraneous retreats, which it forms into several compartments; leaving two holes, one for an entrance, the other to retreat by in case of danger. It is a harmless and inoffensive animal, and will always, when pursued, save itself, if possible, by flight; but if roused to self defence, the lion itself dares not venture to attack it. Sir Ashton Lever kept a porcupine, which he used to turn out upon the grass behind his house, to play with a tame hunting leopard and a large Newfoundland dog. As soon as they were let loose, the leopard and dog began to pursue the porcupine, which always endeavoured to escape; but on finding flight ineffectual, it would thrust its head into a corner, make a snoring noise, and erect its spines. With these its pursuers pricked their noses, until they quarrelled between themselves, and gave the porcupine an opportunity of escape.

The teeth of the porcupine are remarkably strong; wooden dens are totally incapable of securing them. M. Bosman, while on the coast of Guinea, put a porcupine into a strong tub, in order to secure it; but in the course of one night, it ate its way through the staves, even in a place where they were considerably bent outwards, and thus made its escape.

The BEAVER.

M. DU PRATZ, who resided sixteen years in Louisiana, discovered a beaver-dam in a very retired place, at the head of one of the rivers of that country. Near it, he and his men erected a hut, in order to watch the operations of these animals at leisure. They waited until the moon shone bright, when, carrying in their hands branches of trees for concealment, they went carefully and silently to the dam. M. du Pratz ordered one of the men to cut with as little noise as possible, a gutter about a foot wide through it, and to retire immediately to the hiding-place.

"As soon," says he, "as the water through the gutter began to make a noise, we heard a beaver come from one of the huts and plunge in. We saw him get upon the bank, and clearly perceived that he examined it. He then, with all his force, gave four distinct blows with his tail; when immediately the whole colony threw themselves into the water, and went to the dam. As soon as they were assembled, one of them appeared, by muttering, to issue some kind of orders; for they all instantly left the place, and went out on the banks of the pond in different directions. Those nearest to us were between our station and the dam, and therefore we could observe their operations very plainly. Some of them formed a substance resembling a kind of mortar; others carried this on their tails, which served as sledges for the purpose. I observed that they ranged themselves two and two, and that each animal of every couple loaded his fellow. They trailed the mortar, which was pretty stiff, quite to the dam, where others were stationed to take it; these put it into the gutter, and rammed it down with blows of their tails.

"The noise of the water soon ceased, and the breach was completely repaired. One of the beavers then struck two blows with its tail; and instantly they all took to the water without any noise, and disappeared."

M. du Pratz, and his companions afterward retired to their hut to rest. In the morning they again visited the dam, with the intent of examining more closely its construction. For this purpose they cut part of the dam down; and the depression of water it caused, with the noise they made, roused the beavers again. They appeared much agitated; and one of them approached the labourers several times, to examine what passed. M. du Pratz and

his companions again concealed themselves, fearing that the beavers, if further disturbed, would fly to the woods. "One of the beavers then ventured to go upon the breach, after having several times approached and returned like a spy. He surveyed the place, and struck four blows, as he had done the preceding evening, with his tail. One of those that were going to work, passed close by me; and as I wanted a specimen to examine, I shot him. The noise of the gun made all the rest scamper off with greater speed than a hundred blows of the tail of the overseer could have done."

After having driven them, by the repeated firing of his gun, with precipitation into the woods, our writer proceeded to examine their habitations. Under one of the houses, he found fifteen pieces of wood, with the bark partly gnawed off, apparently intended for food; and round the middle of this house, which formed a hall, or entrance passage, he observed no fewer than fifteen different cells or apartments.

Major Roderford, of New York, told Professor Kalm, that he had kept a tame beaver in his house for a year and a half, which he fed with bread, and fish, and water, and suffered to run about like a dog. All the rags and soft things that it could lay hold of, it dragged into its sleeping corner, and made a bed of them. The cat, having kittens, took possession of his bed; and he did not attempt to interrupt her. When the cat went out, the beaver often took one of the kittens between its paws, and held it up to its breast to warm it, and seemed to dote upon it: as soon as the cat returned, he always restored the kitten to her. Sometimes it grumbled, but it never attempted to bite.

THE RAT TRIBE.

The COMMON RAT.

THE brown rat (*Mus decumanus* of Linnæus), and the black rat (*Mus Rattus*), are both of them species too well known in this, as well as most other countries where they are found. The former, which was brought hither from Norway, has greatly diminished the number of the

others, but has itself multiplied to an extraordinary degree. Had they not so many enemies, not only man and other animals, but even among themselves, their increase would be prodigious. They produce from ten to twenty young ones at a litter, and that thrice a year; so that it is possible for the produce of one pair to amount in about two years to upwards of a million. On the return of the Valiant man of war from Havannah, in 1766, the rats had increased to such a degree, that they daily destroyed a hundred weight of biscuit. They were at length destroyed by smoking the ship between decks; and six hampers were, for some time, filled every day with the rats that had thus been killed. In the Isle of France, rats are found in such prodigious swarms, that they are said to have been a principal cause of the Dutch abandoning the island. In some of the houses they are so numerous, that 30,000 have been known to be killed in one year. In Egypt, when the waters of the Nile retire, after the annual inundation, multitudes of rats and mice are seen to issue in succession from the moistened soil. The Egyptians believe that these animals are generated from the earth itself; and some of the people assert, that they have seen the rats in their formation, one half of the bodies flesh, and the other half mud.

The following is a curious instance of animal sagacity, in which the rat species appears to be not deficient:—A gentleman receiving a present of some Florence oil, the flasks were set in his cellar, at the bottom of a shallow box, and, the oil not being wanted for use, they remained there some time; when the owner, going one day by chance into the cellar, was surprised to find the wicker-work, by which the flasks were stopped, gnawed from the greater part of them, and upon examination the oil sunk about two inches, or two inches and a half, from the neck of each flask. It soon occurred to him, that it must be the work of some kind of vermin; and being a man of a speculative turn, he resolved to satisfy the curiosity raised in his mind; he accordingly found means to watch, and actually detected three rats in the very fact. The neck of the flasks was long and narrow, it required therefore some contrivance: one of the rats stood upon the edge of the box, while another, mounting his back, dipped his tail into the neck of the flask, and presented it to a third to lick. They then changed places: the rat which stood uppermost descended, and was accommodated in the same

manner with the tail of his companion, till it was his turn to act the porter, and he took his station at the bottom. In this manner the three rats alternately relieved each other, and banqueted upon the oil, till they had sunk it beyond the length of their tails.

M. Delafond saw a German who had so completely drilled six rats, that he could make them go through astonishing exercises. He kept them enclosed in a box, which he opened, and from which they came out only as they were called; for each had its name. This box was placed on a table, before which the man stood, and against which he leaned. He held a wand in his hand, and called such of his pupils as he wished to appear. That which was called instantly came forth, and climbed up the wand, on which it seated itself in an upright posture, looking round on the spectators, and saluting them after its manner, and waiting the orders of its master, which it executed with all possible precision, running from one end of the rod to the other, putting itself into the attitude of death, or suspending itself by one of its feet, and always by that which was directed.

These first performances finished, to the satisfaction of the spectators and of the master, the pupil received the recompense it had earned. The master invited it to come and kiss his face, and eat the half of a dry rusk which he had between his lips. Immediately the animal ran towards him, climbed up to his shoulder, licked the cheek its master offered, and afterwards with its teeth took the meat. Then, turning to the spectators, seated himself on its master's shoulder, sitting upright, taking the fruit between its paws, eating it, and then returning to its box. Another being called, repeated the same exercises. M. Delafond saw only three of the six the man employed, in the act of performing these exercises; but the others, according to the account of the latter, were equally adroit: the third, however, having blundered in the performance of one of the orders it received, went without its reward, and was subjected to a reprimand from its master, which it heard with submission, lying along the wand, and reclining its head (like a criminal listening to the sentence by which he is condemned), and afterwards creeping into its box with shame, and not appearing again.

The man afterwards called the five others, who came out of the box, and on the table, went through a variety of performances which it would be difficult to describe,

all conformable with his orders. They fought and uttered cries, which the master, at a single word, caused to cease, on account of the alarm felt by some women who were present at the show, and the animals instantly ran into their box.

It ought to be added that, during the exercises thus performed, that which had been sent away with shame, had crept towards the edge of the box, whence he stretched out his muzzle, and followed with his eyes the feats of his comrades. This show was exhibited in 1741, at Bourges, in the Rue Bourbonnoux.

The following anecdote is extracted from a letter of Joseph Purdew:—"This morning," says he, "while reading in bed, I was suddenly interrupted by a noise similar to that made by rats, when running through a double wainscot, and endeavouring to pierce it. The noise ceased for some moments, and then recommenced. I was only two feet from the wainscot, and I observed it attentively: a great rat made its appearance at the mouth of a hole: it looked about, without making any noise, and having reconnoitred as much as it wished, it retired. An instant after, I saw it come again, leading by the ear another rat, larger than itself, and which appeared aged. Having left this at the edge of the hole, it was joined by another young rat. The two overrun the chamber, collecting the crumbs of biscuit which, at supper the preceding evening, had fallen from table, and carried them to the rat which they had left at the edge of the hole. I was astonished at this attention on the part of the animals. I continued to observe with care. I perceived that the animal to which the two others brought food was blind, and unable, except by feeling about, to find the biscuit they offered. I no longer doubted that the two younger ones were its offspring, the assiduous and faithful purveyors of a blind parent. I admired within myself the wisdom of Nature, who has given to all animals a social tenderness, a gratitude, I had almost said a virtue, proportionate to their faculties. From that moment, these abhorred vermin seemed to become my friends. They gave me, for my conduct in a similar case, lessons which I have not often received from mankind. At this juncture a person opened the door: the two young rats warned the blind one by a cry; and, in spite of their fears, would not seek for safety till that was secure: they fol-

lowed as the latter withdrew, and, so to say, served him for a rear guard."

A gentleman, about thirty years ago, travelling through Mecklenburg, stopped at the post-house at New Hargard. After dinner, the landlord placed on the floor a large dish of soup, and gave a loud whistle. Immediately there came into the room a mastiff, an Angora cat, an old raven, and a large rat with a bell about its neck. They all four went to the dish, and, without disturbing each other, fed together; after which the dog, cat, and rat, lay before the fire, while the raven hopped about the room. The landlord, after accounting for the familiarity which existed among these animals, informed his guest that the rat was the most useful of the four, as it completely freed the house, by the noise that it made, from the rats and mice with which it had been infested.

In December, 1815, a full-grown rat was caught in a shop in Glasgow, the neck of which was found to be embellished with the very unusual decoration of two finger-rings; these were of the description manufactured as baubles for children, and were fancifully disposed round the neck of the animal, the stone of one gracing the breast, while that of the other adorned the centre of the neck behind. Conjecture is at a loss to account for the circumstance of the rat becoming so oddly equipped: the rings were so small as to be even less than half the circumference of the head; and the skin around the neck, exposed to the tight friction of the rings, had become completely excoriated; beneath them the hair was entirely worn off, and the flesh protruded in some parts over the rings. This sufficiently indicates that the poor animal must have become possessed of this piece of troublesome finery when very young, and leads to the conclusion of the rings having been stole by a parent-rat and carried to her nest, where, by a singular fatality, this one of her progeny might have put its head through both, and been afterwards unable to extricate itself from either. It is well known, that these animals are extremely fond of trinkets, and in the present case, several rings of the same description had been, at some distance of time, missed from the shop where the rat was caught.

"The following circumstance" (we extract our account from the *Sydney Gazette*) "occurred the other night, at the house of Mr. Robertson, watchmaker, in George-

street, near the King's Wharf.—It is well known that Mr. R. has a family of children. These children, five of them quite babes, have their bed-rooms up stairs, and lay two in a bed. About midnight, on Friday or Saturday last, Mr. R's eldest son was disturbed by some animal, which he supposed to be a cat; he gave a kick, and it fell off the bed. In a few moments after, the animal found its way into his sister's bed-room, and there in like manner created an alarm; it was knocked off the bed, and expressed great displeasure by squeaking; it was then known to be a rat. The horrid animal was not to be deterred from the object in view, by these rebuffs; he made another attack. Some moments after the second alarm, one of the little girls was heard to scream; but all the children being inclined to sleep, even the little creature that was wounded also fell asleep. The morning, however, presented a most dismal scene. The bed, containing Lavelette and Jenny, was drenched in blood. The rat had seized the children just above the nose, and immediately below the forehead. One of the teeth had entered a vein that caused the blood to flow most copiously. Lavelette was nearly in a state of insensibility, and quite colourless.

“It is supposed that the animal must have been satiated with blood, and then retreated. The houses in the lower end of the town are alarmingly infested with these horrid vermin. Plenty of good strong cats (instead of so many useless annoying curs) would be of great advantage to large houses where children constitute so great a portion of the inmates.”

The DOMESTIC MOUSE.

THE mouse, although naturally a timid animal, often becomes confident and sociable. Schreber relates an instance of a mouse that made its appearance every day at the table of its benefactor, and waited until it had received its usual share of food, which it devoured, and then ran away.

The famous Baron Trenck, when confined in his dungeon in Magdeburg, it is said, had so tamed a mouse, that it would play round him, and eat from his mouth. When he whistled, it would come and jump upon his shoulder. After his keepers had given orders that he should be deprived of its society, and had actually taken it away blind-

folded, it found its way back again to the door of his dungeon, waited the hour of visitation, when the door would be opened, and immediately testified its joy by its antic leaping between his legs. This mouse was afterwards carried off, and put into a cage, where it pined, refused all sustenance, and, in a few days, was found dead. "In this small animal," says the Baron, "I discovered proofs of intelligence too great to easily gain belief. Were I to write them, such philosophers as suppose man alone endued with the power of thought, allowing nothing but what they call instinct in animals, would proclaim me a fabulous writer, and my opinions heterodox to what they suppose sound philosophy."

A north of England gentleman, sitting solitary in his study, observed a mouse creep out from beneath the door of a closet; and pleased with its sprightly and frolicsome disposition, determined, if possible, to make friends with his little visitor; and as it frequently returned, he soon succeeded in so far gaining his confidence, as to see him come out, and after carefully examining the ground, that no dog or cat, or hidden snare were in the room, place himself in a proper position to wait patiently for the gift of a piece of buttered toast. In three weeks' time this little fellow would approach the hearth rug, sit down and wash his face, warm himself before the fire, and wait patiently for his supper. After supper he would stretch himself out at full length; yet on the slightest alarm would quickly retreat. One evening a large piece of buttered roll was thrown down to him, and delighted with the magnitude of the donation, he nibbled a bit, and frisked about it, and at last by great exertion, succeeded in trailing it to the crevice, at the bottom of the closet door. The prize proved much too large to pass the aperture; and it was in vain that he exercised his strength and cunning to get off with it, and was obliged, after many fruitless endeavours, to leave it behind him. In a few minutes after his retreat, the observer was astonished to hear a rustling noise in the wall, with some squeaking, till at last, out came mousie, followed by his wife and children; who, after dividing and subdividing the mound of bread and butter, assisted each other in pushing and pulling it through the crevice: they succeeded at last, and carried it off in triumph.

The LONG TAILED FIELD MOUSE.

THE Rev. Gilbert White relates a remarkable instance of sagacity in a long-tailed field mouse. As his people were pulling off the lining of a hot-bed, in order to add some fresh dung, something which made a grotesque appearance, and which was not caught without much difficulty, sprung nimbly from one side. It proved to be a large field mouse, with three or four young ones clinging to her teats by their mouths and feet. It was no small matter of wonder, that the sudden and rapid motions of the dam did not force the young ones to quit their hold, especially as they were so young as to be both blind and naked.

The HARVEST MOUSE.

THIS diminutive species, which has been discovered only in Hampshire, and a few of the adjacent counties, seems to have been first examined by the Rev. Mr. White. One of their nests was brought to him, for examination. It was composed of the blades of wheat, most artificially plaited together, and in form and size exactly resembled a cricket ball. The aperture was so ingeniously closed, that there was no discovering to what part it belonged. The nest was so compact and well-filled, that it would roll across the table without being discomposed, although it contained eight young mice.

This wonderful cradle, an elegant specimen of the efforts of instinct, was found in a wheat-field, suspended in the head of a thistle. Although this animal makes its nest above the ground, yet in winter it generally burrows deep in the earth, where it makes a warm bed of grass; but its grand rendezvous seems to be corn-ricks, into which it is carried during the harvest. One which Mr. White measured, was two inches and a quarter long from the tip of the nose to the tail. Their weight is sometimes not more than *one-sixth of an ounce*. The general colour is nearly that of a squirrel or dormouse. The belly is white.

The ECONOMIC RAT.

THIS species is found in Siberia and Kamtschatka. In spring they collect together in amazing numbers, and proceed in a course directly westward; swimming with the utmost intrepidity over rivers, lakes, and even arms of the sea. Many of them are drowned and destroyed by water-fowl, or fish. Those that escape, on emerging from the water, rest awhile to bask, dry their fur; and refresh themselves. The Kamtschatdales, who have a superstitious veneration for them, whenever they find them thrown upon the banks of the rivers, weak, and exhausted, render them all the assistance in their power. As soon as they have crossed the river Penschinska, they turn in a south-westerly direction, and about the middle of July, generally reach the rivers of Ochtska and Judoma, distance of about *a thousand miles*. The flocks are so numerous, that travellers have sometimes waited more than two hours for them to pass.

The economic rats associate in pairs, and live in burrows under the earth, where they construct several store-houses for the preservation of their food, which consists of plants they gather in the summer, and lay by to dry against the winter.

*THE SQUIRREL TRIBE.**The COMMON SQUIRREL.*

IT is a curious circumstance, and not generally known, that most of those oaks which are called spontaneous, are planted by the squirrel. This little animal has performed the most essential service to the British navy. As a gentleman was walking one day in the wood belonging to the Duke of Beaufort, near Troy-house, in the county of Monmouth, his attention was diverted by a squirrel, which sat very composedly upon the ground. He stopped to observe his motions. In a few minutes, the squirrel darted like lightning to the top of a tree beneath which he had been sitting. In an instant he was down with an acorn in his mouth, and began to burrow in the earth with his

paws. After digging a small hole, he stooped down, and deposited the acorn ; then covering it, he darted up the tree again. In a moment he was down with another, which he buried in the same manner. This he continued to do as long as the observer thought proper to watch him. The industry of this little animal is directed to the purpose of securing him against want in the winter ; and, as it is probable that his memory is not sufficiently retentive to enable him to remember the spots in which he deposits every acorn, the industrious little fellow, no doubt, loses a few every year. These few spring up, and are destined to supply the place of the parent tree. Thus is Britain, in some measure, indebted to the industry and bad memory of a squirrel, for her pride, her glory, and her very existence.

The rest of the squirrel, in its construction, is exceedingly curious. Having chosen a place, generally among the large branches of a tree, where they begin to fork off into smaller ones, and where the wood begins to decay, and may consequently be the more easily hollowed out, the squirrel begins by making a kind of level between the forks, and then, with moss, twigs, and dry leaves, it binds them together with such art, as to resist the most violent storm. This is covered in on every side, leaving only a single opening just large enough to admit the little animal, which is itself defended by a kind of a canopy formed like a cone, so as to shed off the rain, however heavy it may fall. The various hollows of the same tree are used as store-rooms, where he lays up provisions against that period, when food is no longer to be procured abroad.

The GREY SQUIRREL.

THESE animals sometimes commit great havock amongst the plantations in North America. They sometimes come by hundreds upon a maize-field, and in one night destroy the whole crop. In some of the provinces, twopence a head was given from the public treasury, to all who could kill them. And in Pennsylvania alone, from January, 1749, to January 1750, no less than *eight thousand pounds* was paid in rewards for the killing of them ; consequently in that year 640,000 of them must have been destroyed.

The grey squirrels occasionally migrate to immense distances, so that sometimes there is not one of them to be seen, during a whole winter, where there was millions in the preceding year. In their journeys, when it becomes necessary to pass a lake or river, they lay hold of a piece of larch or fir, and mounting it, abandon themselves to the waves. They erect their tails to catch the wind; but if it blow too strong, or the waves rise high, the pilot and the vessel are both overturned. This kind of wreck, which often consist of three or four thousand sail, generally enriches the Laplanders, who live in the vicinity, and pick up their dead bodies on the shore.

The STRIPED or GROUND SQUIRREL.

As a Swede was making a mill-dike, late in autumn, he took for that purpose the soil of a neighbouring hill, in digging which he discovered a subterraneous walk belonging to a family of these squirrels. After having traced this to some distance he found a gallery on one side, like a branch parting from the main stem. It was nearly two feet long; and at its extremity there was a quantity of acorns of the white oak, which the careful little animal had stored up against the winter. He soon afterwards found another gallery, on one side, like the former, but containing a store of maize; a third had hickery nuts, and the last and most secret one contained as many excellent chesnuts as would have filled two hats.

THE HARE TRIBE

The COMMON HARE.

DR. TOWNSON, while at Gottingen, had a hare that was so familiar and frolicsome, that it would run and jump about his sofa and bed. Sometimes, in its play, it would leap upon him, and pat him with its fore feet; or, whilst he was reading, would even knock the book out of his hand. Mr. Borlase saw a hare that was in every respect as tame and domestic as a common lap-dog.

The ALPINE HARE

INHABITS the woody and mountainous regions from the lake Baikal in Siberia, as far northward as Kamtschatka, where it lives in burrows and crevices of the rocks. It is about nine inches in length, with short rounded ears; its fur is dusky at the roots, of a bright bay colour at the ends, tipped slightly with white, and intermixed with long dusky hairs.

Like most of the inhabitants of these inclement regions, the Alpine hare makes a provision against the rigorous season. A company of them, towards autumn, collect together vast heaps of favourite herbs and grasses, which they place beneath the overhanging rocks, or between the chasms, or around the trunk of some tree. They select the best vegetables, and crop them when in the fullest vigour, and, by the very judicious manner in which they dry them, make them into excellent hay. The heaps are formed like round or coned ricks, and are sometimes about a man's height, and usually three or four feet in diameter.

The OGOTONA HARE,

WHICH inhabits all Mongolia, and beyond lake Baikal, is somewhat more than six inches in length, of a pale brown colour above, and somewhat white beneath, and is entirely destitute of tail. They live under heaps of stone, or in burrows which they form in the sandy soil, and which have two or three entrances. Like the former species they form ricks of hay, about a foot high and wide, against winter.

The CALLING HARE

Is even a smaller species than the former, but has a great resemblance to it in form. They are natives of Russia. The entrance to their burrows is generally concealed among bushes, from whence they form long and intricate passages, in which they form their nests. Their voice, which is like the piping of a quail, but much deeper, and which is repeated at equal intervals, three, four, and often six times successively, betrays their abode.

The CAMEL.

THE camel is endowed with a great share of intelligence. The Arabs assert, that they are so sensible of ill-treatment, that when this is carried too far, the inflictor will not find it easy to escape their vengeance. Eager, however, to express their resentment, they no longer retain any rancour, when once they are satisfied; and it is even sufficient for them to *believe* they have satisfied their vengeance. When an Arab has excited the rage of a camel, he throws down his garments in some place near which the animal is to pass. He immediately recognizes the clothes, seizes and shakes them with his teeth, and tramples on them in a rage. When his anger is appeased he leaves them, when the owner may appear, and guide him as he will. "I have seen these animals," says M. Sonnini, "weary of the impatience of their riders, stop short, turn round their long necks to bite them, and utter cries of rage. In these circumstances the man must refrain from striking his beast, as that would but increase his fury. Nothing can be done but to have patience, and endeavour to appease the animal, by patting him with the hand, and after a while he will resume his way and his pace of himself."

THE DEER TRIBE.

The ELK, or MOOSE DEER.

AN attempt has been made at New York to render this animal useful in agricultural labour. Two of them were broken to the harness by the president of the New York Society. They soon became as docile as colts, applied their whole strength to the draught, and kept at a steady pace. It required considerable care to avoid injuring their mouths, which are very tender, with the bit. On the whole they would be, if they can generally be rendered useful in the harness, preferable even to the horse itself, as their trot is very rapid, and in their food they are by no means so nice as that animal.

In 1777, an Indian, at the factory at Hudson's Bay, had two elks so tame, that when he was on his passage to Prince of Wales's Fort, in a canoe, they always followed him along the bank of the river; and at night, or on any other occasion, when he landed, they generally came and fondled on him, in the same manner as the most domestic animals would have done. One day, he crossed a deep bay in one of the lakes, in order to save a very circuitous route along its bank, expecting they would, as usual, follow him round; but when, at night, he arrived at the opposite shore, he did not find them there; and as the howling of wolves was heard in the quarter where they were, they were supposed to have been devoured by these voracious animals, for they were never afterwards seen.

The Indians have a superstitious notion that there is an elk of such an enormous size, that eight feet depth in snow is no impediment to his walking, that his hide is proof against every description of weapon, that he has arms like those of man, growing out of his shoulders, and that he is attended by a numerous court of elks, of a somewhat smaller dimension. The North American elks are supposed to be of the same species as the great antedeluvian elk, whose enormous fossil remains are so often found in that country. It is probable, that from these remains the above tradition originated.

The REIN-DEER.

A FAMILY of Laplanders, and with them their herd of rein-deer, were brought from their native country by Mr. Bullock, and exhibited in London, at the Egyptian Hall, Piccadilly. From his account some of the following particulars are extracted:—

“I left England for the purpose of procuring a stock of deer, and if possible a Lapland family with them. After three unsuccessful attempts, I have attained my object: a herd of rein-deer, with their natural proprietors, is for the first time in London. The people have brought their summer and winter residences and furniture with them. The man, Jens Holm, and his wife Karina Christian, are about four feet and eight inches high, which, in Lapland, is not beneath the usual height; on the contrary, Karina is considered a tall woman; their son, four

years and a half old, is not likely to be so tall as his father : they understand the Norwegian language.

"They exhibit the deer decorated in the manner of their country, and drawing light carriages and sledges. Nothing can exceed the extraordinary appearance of these noble quadrupeds ; in size, they excel the red deer, or stag ; the enormous horns in some almost exceed belief. A cord passed round those of a fine male measures thirty feet ; in some they appear like the branches of an aged oak, stripped of its foliage. The immense brow antlers vary in some individuals from two to four.

"They are sleek in summer, but in winter clothed with a thick impenetrable coat of long hair, of a dry, husky appearance ; their feet are large and wide, extending considerably whilst resting on the ground, and covering a space of sixteen inches in circumference. Every time each foot is moved, a loud clicking noise is heard, occasioned by one of the hoofs striking against the other.

"The morning after my arrival at Figeland, the young mountaineer to whose care they were intrusted (and between whom and the deer there appeared to exist the strongest mutual attachment), turned them out of the fold, in which they are always kept at night, to protect them from the wolves, that I might have an opportunity of seeing them. They immediately followed their leader* up the side of a mountain ; after a few moments, he demanded of me which way they should go ; he called in a loud voice, and they instantly stopped : he ordered them from right to left, and back again, and then to proceed ; and they were out of sight in a moment. On their arrival from the mountains on the shore of the harbour opposite Fleckiford, Salva, the mountaineer, went into a boat, and pointed out to the leader where they were to land ; they swam across in a few minutes.

"The whole herd was in the town surrounded by hundreds of the wondering inhabitants, took food from their hands, and seemed pleased with the caresses of the women and children. They were at first quartered in the yard of the house where I lodged, and my good old landlady, Madame Bornick, was delighted with her new guests ; but the number of persons who collected from all parts of the country was so great, that it became necessary to remove

* One of the deer, it is stated, is always the leader, or captain, whose orders are scrupulously obeyed by the rest, and in whose experience they seem to place unlimited confidence.

them to a place where they could remain a few days rested, to recover from the fatiguing journey that had just terminated. I had the use of a large island about two miles from the town, offered for their reception ; and they were marched to the shore opposite to it, where large boats were prepared by lashing them together. The deer walked immediately to the side of the quay, but the leader observing the boats move, stopped and examined them very minutely : he hesitated ; and the herd became instantly alarmed : it was the first time they had seen a boat. After some further hesitation, and a little fear, the leader walked in. The eyes of the whole were instantly fixed on him, and they distinctly expressed their fears for his safety ; and some then turned their eyes to the mountains : he was at this time examining the planks with his feet : the motion did not please him. Salva seated himself by his head, patted his neck, and laid his face to that of the deer. Jens was by this time in the other boat ; upon seeing him the deer turned his head, looked attentively at his followers, and in a short snort gave the signal for them to come in. It was not obeyed for a moment ; and he repeated it in rather an angry manner, stamping with his foot. In a moment the boats were all filled. In jumping in, a weakly calf fell, and lay in the bottom of the boat in such a situation, that I considered its destruction inevitable ; yet it received no injury. Their care and love for each other are truly admirable. As soon as they were in, the leader, observing there were more in one boat than the other, looked at one of the old males, which, appearing perfectly to understand him, instantly went into the other boat. The ropes were cast off : they remained perfectly still till they reached the island ; when, following the leader, they leaped on the rock, ascended the side of a small hill, and got a plentiful supply of their favourite white moss. A day or two after their arrival, the change of food and climate affected the calves ; two of them could not be found. Karina, however, begged me not to trouble myself, for that the mother had concealed them where no one but herself could find them. In the afternoon I ordered Jens to draw the whole of them to the shore : he collected them in a moment by whistling, and began to descend the hill, when Karina came to me laughing, and pointing to a female who was loitering behind, and who, as soon as she fancied herself unperceived, turned back ; ‘She is gone to fetch her child,’ said Karina, and with it

she soon made her appearance. I have been often amused by the manner in which the males examine and dress their wonderful horns; it is performed in the neatest manner with the hind foot.

"In Lapland, the herds of these animals are extremely numerous: the poor have from fifty to two hundred; the middle class from three to seven hundred, and the rich above a thousand. Their greatest enemy is the wolf, which sometimes breaks into the fold, and destroys thirty or forty at a time. The Laplander holds him in the greatest detestation, and is almost in a rage when the name is mentioned. The first question put to me by Jens Holm, was, 'Are there wolves in England?' and when told that they were entirely extirpated, he clasped his hands, and said, 'If it had snow, mountains, and rein-moss, what a happy country it would be.' Bears sometimes destroy the deer, seizing them by surprise; but this is rather a rare occurrence.

"Plenty of the *lichen rongeferinus*," observes Mr. Bullock, "or rein-deer moss from Bagshot Heath, on which the animals feed, is in the room; the deer receive it with the greatest avidity, from the hands of the visitors, in preference to every other food. It is now known that most of the high tracts of uncultivated heath-land in the United Kingdom produce it in abundance, and it is hoped that those hitherto unproductive wastes (for no other animal will eat of this moss) will shortly supply our table with the finest venison and most exquisite chimes at a very moderate rate; it having been ascertained that the climate that produces in luxuriance the *lichen rongeferinus* is congenial to the propagation of the rein-deer." Several attempts, however, have been made to breed the rein-deer in this country, but owing to some unforeseen accident or other, they have been all unsuccessful.

From Captain Parry, says one of the gentlemen engaged in the late expedition to the Polar regions, I learned an interesting anecdote of a doe and her fawn, which he had pursued across a small inlet. "The mother, finding that her young one could not swim so fast as herself, was observed to stop repeatedly, so as to allow the fawn to come up with her; and having landed first, she stood watching it with trembling anxiety, as the boat chased it to the shore. She was repeatedly fired at, but remained immovable till her offspring landed in safety, when they both cantered out of sight."

THE ANTELOPE TRIBE.

The CHAMOIS.

CHAMOIS are very fearful, certainly not without sufficient cause, and their sense of smell and sight being most acute, it is extremely difficult to approach them within the range of a shot. They are sometimes hunted with dogs, but oftener without, as dogs drive them away to places where it is difficult to follow them; when a dog is used he is to be led silently to the track, which he never will afterwards lose, the scent being very strong; the hunter, in the meantime, chooses a proper station to lay in wait for the game, some narrow pass through which its flight will most likely be directed.

More frequently the hunter follows his dog, with which he easily keeps pace by taking a straighter direction, but calls him back in about an hour, when he judges the chamois to be a good deal exhausted and inclined to lie down to rest; it is then approached with less difficulty. An old male will frequently turn against the dog when pursued, and while keeping him at bay, allows the hunter to approach very near. Hunters, two or three in company, generally proceed without dogs; they carry a sharp hoe to cut steps in the ice, each his rifle, hooks to be fastened to his shoes, a mountain stick with a point of iron, and in his pouch a short spy-glass, barley-cakes, cheese, and brandy made of gentian or cherries. Sleeping the first night at some of those upper chalets, which are left open at all times, and always provided with a little dry wood for a fire, they reach their hunting grounds at daylight. There, on some commanding situation, they generally find a *luegi*, as it is called, ready prepared, two stones standing up on end, with sufficient space between to see through, without being seen; there one of the hunters creeps, unperceived, without his gun, and carefully observing every way with his spy-glass, directs his companions by signs.

The utmost circumspection and patience are requisite on the part of the hunter, when approaching his game; a windward situation would infallibly betray him by the scent; he creeps on from one hiding rock to another, with his shirt over his clothes, and lies motionless in the snow, often for half an hour together, when the herd appears

alarmed and near taking flight. Whenever he is near enough to distinguish the *bending of the horns*, that is, about the distance of two hundred or two hundred and fifty steps, he takes aim; but if at the moment of raising his piece, the chamois should look towards him, he must remain perfectly still, the least motion would put them to flight, before he could fire, and he is too far to risk a shot otherwise than at rest. In taking aim he endeavours to pick out the darkest coat, which is always the fattest animal; this darkness is only comparative, for the colour of the animal varies continually, between light bay in summer, and dark brown, or even black, in winter. Accustomed as the chamois are to frequent and loud detonations among the glaciers, they do not mind the report of the arms so much as the smell of gunpowder, or the sight of a man; there are instances of the hunter having time to load again, and fire a second time after missing the first, if not seen. No one but a sportsman can understand the joy of him, who after so much toil sees his prey fall; with shouts of savage triumph he springs to seize it, up to his knees in snow, despatches the victim if he finds it not quite dead, and often swallows a draught of warm blood, deemed a specific against giddiness. He then guts the beast to lessen its weight, ties the feet together, in such a manner as to pass his arms through on each side, and then proceeds down the mountain, much lighter for the additional load he carries. When the day is not too far spent, the hunters, hiding carefully their game, continue the chase. At home the chamois is cut up, and the pieces salted or smoked: the skin is sold to make gloves and leathern breeches, and the horns are hung up as a trophy in the family. A middle-size chamois weighs from fifty to seventy pounds, and, when in a good case, yields as much as seven pounds of fat. Not unfrequently the best marksman is selected to lie in wait for the game, while his associates, leaving their rifles loaded by him, and acting the part of hounds, drive it towards the spot. Sometimes, when the passage is too narrow, a chamois, reduced to the last extremity, will rush headlong on the foe, whose only resource to avoid the encounter, which, on the brink of precipices, must be fatal, is to lie down immediately, and let the frightened animal pass over him. There was once an instance of a herd of fourteen chamois, which, being hard pressed, rushed down a precipice to certain death rather than be taken. It is wonderful to see them

climb abrupt and naked rocks, and leap from one narrow cliff to another, the smallest projection serving them for a point of rest, upon which they alight, but only just to take another spring; their agility made people believe formerly that they could support themselves by means of their crooked horns. They have been known to take leaps of twenty-five feet down hill, over fields of snow.

The leader of the herd is always an old female, never a male. She stands watching when the others lie down, and rests when they are up and feeding, listening to every sound, and anxiously looking round; she often ascends a fragment of rock, or heap of drifted snow, for a wide field of observation, making a sort of gentle hissing noise when she suspects any danger. But, when the sound rises to a sharper note, the whole troop flies at once, like the wind, to some more remote and higher part of the mountain: the death of this old leader is generally fatal to the herd: their fondness for salt makes them frequent salt-springs and salt-marshes, where hunters lie in wait for them; the latter practice, also, a very old *ruse de guerre*; having observed the chamois are apt to approach cattle on the pastures, and graze near them, a hunter will crawl on all fours towards cattle, with salt spread upon his back to attract the cattle, and is immediately surrounded and hid by them so completely, that he finds no difficulty in advancing very near the chamois, and taking a sure aim. At other times, a hunter, when discovered, will drive his stick into the snow, and place his hat on the top of it: then, creeping away, go round another way, while the game remains intent on the strange object, which it still sees in the same place.

The NYL-GHAU.

THIS animal, which is somewhat more than four feet high at the shoulder, of a dark grey colour, with some spots of white, and furnished with short blunt horns which bend forwards, is a native of the interior parts of India. It has a short mane on the back of the neck, and a long tuft of black hair on the fore part of the throat. The female is destitute of horns, and is of a pale brown colour.

Although it is reported to be a very vicious animal, yet one which was in the possession of Dr. Hunter was quite

tame and docile. It was pleased with every kind of familiarity, always licking the hands which either stroked it or gave it food, and never once attempting to use its horns offensively.

Their mode of attack is to fall on their fore knees, when within a considerable distance of the object of their hostility, and when they come within a few yards, making a spring and darting against it. The force with which they spring against any object is very great. A labouring man, without knowing that the animal was near him, and consequently neither meaning to offend, nor conscious that any danger was to be feared, came to the outside of the pales of the enclosure, in which a fine nyl-ghau was kept in England. The animal, with the swiftness of lightning, darted against the wood-work, and with such violence, that he shattered it to pieces, and broke off one of his horns close to the root.

The Goat.

M. SONNINI gives a curious instance of the readiness with which the goat will permit itself to be sucked by other animals, even of a larger size. He saw, in 1780, a foal, that had lost its mother, thus nourished by a goat, which was placed on a barrel, in order that the foal might suck with greater convenience. The foal followed its nurse to pasture, as it would have done its parent, and was attended with the greatest care by the goat, which always called it back by her bleatings, when it wandered to any distance from her.

Some peasants of the Cerdanæspanola, seated on the highest Pyrenees, while gathering wild spinach, saw a herd of *irzans*, a species of wild goats, followed by their young. They succeeded in capturing one of the latter. The rest of the herd fled; but scarcely had the captive uttered a few bleatings, when they saw an irzen stop to listen, which proved to be its mother. One of the women resolved to try, by means of the kid, to attract and take the latter. She mounted a steep rock, carrying her prey with her, and showing it to the mother. At the cry of her offspring she began to approach, though with trembling; but afterwards retired, and, like it, began to bleat. The bleatings were redoubled from both; the mother advanced nearer; fear seized on her afresh; she fled again. At length,

after a long struggle, she yielded to the maternal impulse, approached the young one, and, without the least resistance, suffered herself to be bound by the woman. From this moment she ceased to be wild; and the country woman easily led her wherever she pleased.

The SHEEP.

ALTHOUGH the sheep, in its most domestic state, is one of the tamest animals imaginable, on the extensive mountains where they range almost without control, and where they seldom depend on the aid of the shepherd, they assume a very different conduct. When any considerable danger is at hand, they draw up into a body, and place the young ones and females in the centre, whilst the males take the foremost ranks, keeping close to each other, thus presenting an armed front on all sides. In this manner they firmly await the approach of the enemy; and when the aggressor advances within a few yards of the line, the rams dart upon him with such impetuosity, that if he does not save himself by a timely retreat, lays him dead at their feet. A single ram will sometimes engage a bull, and his forehead being much harder than that of any other animal, he seldom fails to conquer: the bull, by lowering his head, receives the stroke of the ram between his eyes, which usually brings him to the ground.

THE OX TRIBE.

The Ox.

IN Lord Tankerville's park, at Chillingham, near Berwick-upon-Tweed, there is a breed of wild cattle, probably the only remains of the true and genuine breed of that species, at present found in this kingdom.*

* The colour of this animal is invariably white: the muzzle is black; and the whole outside of the ear, and about one third part of the inside, from the tip downwards, red. The horns are white, with black tips, very fine, and bent downwards. The weight of the bulls is from thirty-five to forty-five stone, and of the cows, from twenty-five to thirty-five, 14lb to the stone.

At the first appearance of any person near them, these animals set off in full gallop, and, at the distance of two or three hundred yards, wheel round, and come boldly up again, tossing their heads in a menacing manner. On a sudden, they make a full stop at the distance of forty or fifty yards, and look wildly at the object of their surprise; but, on the least motion, they all turn round, and gallop off again with equal speed, but not to the same distance, forming a smaller circle; and again returning with a bolder and more threatening aspect than before, they approach much nearer, probably within thirty yards, when they make another stand, and again gallop off. This they do several times, shortening their distance, and advancing nearer, till they come within a few yards, when most persons consider it prudent to leave them, not choosing to provoke them further, as it is probable that, in a few turns more, they would make an attack.

The mode of killing these animals, as it was practised a few years ago, was the only remains of the grandeur of ancient hunting that existed in this country. On notice being given that a wild bull would be killed on a certain day, the inhabitants of the neighbourhood assembled, sometimes to the number of a hundred horsemen, and four or five hundred foot, all armed with guns, or other weapons. Those on foot stood upon the walls, or got into trees, while the horsemen rode off a bull from the rest of the herd, until he stood at bay, when they dismounted and fired. At some of these huntings twenty or thirty shots have been fired, before the animal was subdued. On such occasions the bleeding victim grew desperately furious, from the smarting of his wounds, and the shouts of savage joy echoing from every side. But from the number of accidents which happened, this dangerous mode has not of late been practised; the park-keeper now generally kills them with a rifle-gun.

When the cows calve, they hide their young ones for a week or ten days, in some sequestered retreat, and go to suckle them two or three times in a day. If any person comes near one of the calves, it crouches close upon the ground, and endeavours to hide itself. This seems a proof of the native wildness of these animals, and it is corroborated by the following circumstances, that happened to Dr. Fuller, the author of the History of Berwick, who found a hidden calf two days old, very weak and lean. On his stroking its head it got up, pawed two or

three times like an old bull, bellowing very loud, went back a few steps, and bolted at his legs with all its force; it then began to paw again, bellowed, stepped back, and bolted as before; but being aware of its intentions, he moved aside, and it missed its aim, fell, and was so weak, that, though it made several efforts, it was not able to rise. It, however, had done enough; the whole herd was alarmed, and coming to its rescue, obliged him to retire. When any one of these animals happens to be wounded, or is grown weak and feeble through age or sickness, the rest of the herd set upon and gore it to death.

The following anecdote is related by Cochrane, in his "Travels in Colombia." "On such a night as this," he says, "I was suddenly aroused by a most terrific noise, a mixture of loud roarings and deep moans, which had a most appalling effect at so late an hour. I immediately went out, attended by the Indians, to ascertain the cause; when I found close to the *rancha* a large herd of bullocks, collected from the surrounding country. They had encompassed a spot where we had killed a bullock in the morning; they appeared to be in the greatest state of grief and rage; they roared, they moaned, they tore the ground with their feet, and bellowed the most hideous chorus that can be imagined; and it was with the greatest difficulty that they could be driven away by the men and dogs. Since then, I have observed the same scene by daylight, and seen large tears rolling down their cheeks. Is this instinct merely, or does something nearer to reason tell them, by the blood, that one of their companions has been butchered? I certainly never again wish to view so painful a sight—they actually appeared reproaching us." "Senor Ramirez," he adds, "informed me, that in the plains of Casanarie, he has seen more than a hundred oxen round the spot where an animal had been killed, the whole herd rending the air with their horrid cries. These wails and lamentations they will frequently repeat for a month, by which time the ground has imbibed, and the air carried off, all vestige of the slaughter.

The ARNEE.

THIS animal (the *Bos Arnee* of Shaw,) is by far the largest of the cattle tribe that has hitherto been discovered, its usual height being from twelve to fifteen feet.

It inhabits the north of India, but is seen within the European settlement. A British officer, who found one of these animals in the woods in the country above Bengal, describes it as appearing to partake of the form of the horse, bull, and deer, and as a very bold and daring animal.

In 1790 or 1791, the crew of the Hawkesbury East-Indiaman observed one of these animals still alive, floating in the Ganges, about fifty miles below Calcutta. It was immediately chased, caught, and hoisted on deck, where it was killed, cut up, and afterwards cut up for the use of the ship's company, who found it to be most delicate food. Although it appeared to be but about two years of age, it was as big as an immensely large ox, and when cut up, was found to weigh three hundred and sixty pounds per quarter, making one thousand four hundred and forty pounds' weight for the whole carcass.

The AMERICAN BISON.

"THERE is," says Mr. Turner, who resided long in America, "a singular and affecting trait in the character of this animal when a calf. Whenever a cow bison falls by the murdering hand of the hunters, and happens to have a calf, the helpless young one, far from attempting to escape, stays by its fallen dam, with signs expressive of strong natural affection. The dam thus secured, the hunter makes no attempt on the calf (knowing that to be unnecessary), but proceeds to cut up the carcass; then, laying it on his horse, he returns home followed by the calf, which thus instinctively attends the remains of its dam. I have seen a single hunter ride into the town of Cincinnati, between the Miames, followed in this manner by three calves, all of which had just lost their dams, by this cruel hunter."

The BUFFALO.

IN Captain Franklin's highly interesting journey to the Polar Seas, is a curious account of the method adopted by the Stone-Indians to destroy this animal:—

"The Stone-Indians," says he, "are so very expert with the bow and arrow, that they can strike a very small

object at a considerable distance ; and will shoot with sufficient force to pierce through the body of a buffalo when near.

“ The buffalo-pound is a fenced circular space, of about one hundred yards’ diameter. The entrance is banked up with snow to a sufficient height to prevent the retreat of the animals that may have once entered. For about one mile on each side of the road, leading to the pound, stakes are driven into the ground, at nearly equal distances of about twenty yards. These are intended to look like men ; and to deter the animals from attempting to break out on either side. Within fifty or sixty yards from the pound, branches of trees are placed between these stakes, to screen the Indians who lie down behind them, to await the approach of the buffalo.

“ The principal dexterity in this species of chase is shown by the horsemen, who have to manœuvre round the herd in the plains, so as to urge them to enter the roadway, which is about half a mile broad.

“ When this has been accomplished, they raise loud shouts, and pressing close upon the animals, so terrify them, that they rush heedlessly forward towards the snare. When they have advanced as far as the men who are lying in ambush, they also rise, and increase the consternation by violent shouting and firing of guns.

“ The affrighted beasts, having no alternative, run directly into the pound, where they are quickly dispatched either with an arrow or gun.

“ There are trees in the centre of the pound, on which the Indians hang strips of buffaloes’ flesh, and pieces of cloth, as tributary or grateful offerings to the *Great Master of Life* ; and we were told, that they occasionally place a man in the tree to sing to the presiding Spirit as the buffaloes are advancing, who must keep his station until the whole that have entered are killed.

The manner in which the natives kill the buffaloes in Central Africa, as related by Major Denham and Captain Clapperton, is curious, and rather perilous. They chase them in the swamps, where they feed ; and as their horses are trained to go quite close to them as they run, the rider is enabled to get his foot well fixed on the buffalo’s back : with singular skill he then strikes, just behind the animal’s shoulder, one or two spears, if he can place them ; pierced with these, the animal is able to run but a short distance ; then, with the assistance of his companion, but frequently

alone, he dismounts and dispatches his prey. It sometimes happens that the buffalo, by quickly turning his head before they strike, oversets both horse and rider.

A singular circumstance is recorded by the navigators who completed the voyage to the Pacific Ocean, begun by Captain Cook. They procured eight buffaloes at Pulo Condore, which were to be conducted to the ships by ropes put through their nostrils, and round the horns; but when these were brought within sight of the ship's people, they became so furious, that some of them tore out the cartilage of their nostrils, and set themselves at liberty; and others broke down the shrubs to which it was found necessary to fasten them. Every attempt to get them on board would have proved fruitless, had it not been for some children, whom the animals would suffer to approach them, and by whose puerile management their rage was quickly appeased: and, when the animals were brought to the beach, it was by their assistance, in twisting ropes round their legs, that the men were enabled to throw them down, and by that means got them into the boats; and, which was no less singular, they had not been on board a day before they became perfectly gentle.

Colonel Symes, when shooting deer, at Deesa, not far from Pegue, met with a herd of buffaloes, and had an instance of their inveterate hatred to the colour of red or scarlet.

"Proceeding to the eastward," says he, "about a mile from the town, we entered an extensive plain, where the tall rank grass had been consumed by fire, to allow the growth of the more delicate shoots as pasturage for the cattle. Here we soon discovered a herd of deer, but so watchful and wild, that I could only get near enough to fire a random shot from a rifle, which did not take effect. I endeavoured to approach them unperceived. I left my servants and guide at a considerable distance, and took a circuit by myself, out of sight of my companions. A drove of buffaloes belonging to the villagers, happened to be nigh at the time that I discharged my gun. Alarmed at the noise, the whole troop raised heir heads, and, instead of running away, seemed to stand on the defensive. I walked leisurely from them, when two came out of the herd, and with their tails and heads erect, trotted towards me, not in a straight line; but making half a circle, as if afraid to advance. They were too near for me to think of escaping by flight, I therefore kept on at a moderate

pace, in an oblique direction stopping at times, with my face towards them, on which they also stood still and looked at me; but when I resumed my way, they immediately advanced. In this circuitous manner one of them came so close, that I felt my situation extremely awkward. I had reloaded my rifle whilst I walked, but reserved it for an extremity. As the beast approached, I stopped more frequently, which always checked his progress for a time; but he had now drawn so nigh, that I expected every instant to have a direct charge made at me. Fortunately the Miou-gee, from a distance, discovered my situation. He hallooed out, and made signs, by taking off his blue cotton jacket, holding it up in the air, and then throwing it down. I immediately comprehended his meaning, and whilst I edged away slipped off my scarlet coat, which I flung, together with my hat, into some long grass, where they lay concealed. The buffalo instantly desisted from the pursuit, and returned towards the herd, quietly grazing as he retired. This circumstance proves that the buffalo entertains the same antipathy to the colour of red or scarlet, that some other animals are known to do. The Miou-gee, when I joined him, seemed quite as much alarmed as I was. He said, that if I had sustained any injury, his head would have paid the forfeit of the accident. One of these buffaloes, he observed, is a match both in strength and fierceness for the tiger.”*

The CAPE BUFFALO

Is too well known for its savage disposition, vast size, and enormous strength, in the Cape Territory, and the plains of Caffraria. They frequently conceal themselves among the trees, and there stand lurking till some unfortunate passenger passes by, when it springs upon him, kills him, and, not content with this, stands over him for a long time after, trampling and tearing him with its hoofs, horns, and teeth. As Professor Thunburg was travelling in Caffraria, he and his companions had just entered a wood, where they discovered a large old male buffalo, lying quite alone. On observing the guide, the animal immediately rushed upon him with a terrible roar. The fellow turned short round a large tree, and the buffalo

* Symes' Account of an Embassy to Ava.

rushed forward upon the next man, and gored his horse so dreadfully in the belly, that it died soon afterwards. These two men climbed into trees, and the furious animal ran towards the rest, who were approaching at some distance. A horse with a rider, which was in front, was attacked with such fury, that the buffalo not only drove his horns into the horse's breast, but even out again through the very saddle. The Professor, who at this moment came up, took refuge, like the rest, in a tree ; but, after the destruction of the second horse, the buffalo turned suddenly round and galloped away.

The buffalo of the Cape has the same antipathy to red as those of other countries. A buffalo, that was pursued by some Europeans of the Cape into a narrow pass, suddenly turned upon them, and singled out the only one who had a red waistcoat, pursuing him even into the water, until he dived out of its sight, when it pursued its course until it was shot from a ship that lay at a little distance.

THE HORSE TRIBE.

The COMMON HORSE.

THE wild horses of South America are of Spanish origin, and are become so numerous, as to be found sometimes in herds of ten thousand each. When they perceive domestic horses in the field, they gallop up to them, caress, and seduce them away to join the independent herds.

The wild horses, that are found in the Ukraine, are no otherwise serviceable to man but as food. Those on each side the Don are said to be the offspring of the Russian horses that were employed at the siege of Asoph, in 1697, when they were turned out for want of forage. They have relapsed into a state of nature, and become as shy and timid as the original savage breed.

Wild horses are frequently mentioned by the ancients as inhabiting these parts. Herodotus speaks of some that were of a white colour, which were found on the banks of the Hypanis in Scythia ; and he says, that in the northern part of Thrace, beyond the Danube, there were wild horses covered all over with hair five inches long.

In Arabia horses are found in the highest perfection, as little degenerated in their race and powers as the lion or tiger. To the Arabs they are as dear as their own children; and the constant intercourse, arising from living in the same tent with their owner and his family, creates a familiarity that could not otherwise be effected, and a tractability that arises only from the kindest usage. They are the fleetest animals of the desert, and are so well trained as to stop in their most rapid course by the slightest check of the rider. Unaccustomed to the spur, the least touch with the foot sets them again in motion, and so obedient are they to the rider's will, as to be directed in their course merely by the motion of the switch. In the day time they are generally kept saddled at the door of the tent, prepared for any excursion their master may take. They never carry heavy burdens, nor are employed on long journeys. Their constant food, except in spring, when they get a little grass, is barley, which they are suffered to eat only during the night. The whole stock of a poor Arabian of the desert consisted of a beautiful mare; this the French consul at Said offered to purchase, with an intention to send her to Louis the Fourteenth. The Arab, pressed by want, hesitated for a long time, but at length consented, on condition of receiving a very considerable sum of money, which he named. The consul wrote to France for permission to close the bargain, and, having obtained it, sent immediately to the Arab the information. The man, so poor as to possess only a miserable rag, a covering for his body, arrived with his magnificent courser. He dismounted, and looking first at the gold, and then stedfastly at his mare, heaved a deep sigh: "To whom is it," he exclaimed, "that I am going to give thee up?—to Europeans! who will tie thee close, who will beat thee, who will render thee miserable! Return with me, my beauty, my jewel! and rejoice the hearts of my children!" As he pronounced the last words, he sprang upon her back, and was out of sight almost in an instant.

The dance of animals, which was not unknown to antiquity, admitted in the *corps de ballet*, dogs, bears, apes, and elephants, but horses exceeded all the rest in the *gracefulness* of their steps. Pliny informs us, that the Sybarites were the first who associated this tractable quadruped to their ball. The experiment, however, proved fatal to them, for in a war with the Crotoniataë, the enemy

having instructed their trumpeters to sound the usual charge in a pitched battle, the horses of the Sabarites fell to dancing, instead of advancing to the charge, and were, with their riders, cut in pieces.

Ray informs us, that he had seen a horse which danced to music, and, at the command of his master, would dissemble death, lay motionless, with his limbs extended, and allow himself to be dragged about till some words were uttered, on which he instantly sprang on his feet. This fact will not be doubted by those who have witnessed the admirable equestrian spectacle of the "High-mettled Racer," at Astley's, where a horse performed feats still more extraordinary. Mr. Astley once had in his possession a remarkably fine Barbary horse, forty-three years' old, presented to him by the late Duke of Leeds. This celebrated animal, for a number of years, officiated in the character of a waiter, in the course of the performances at the Amphitheatre, and at various other theatres in the united kingdom. At the request of his master, he has been seen to bring into the riding-school a tea-table and its appendages, which feat has been followed up by fetching a chair or stool, or whatever else might be wanted. His achievements generally terminated by taking a kettle of boiling water from a considerable blaze of fire, to the wonder and admiration of every beholder.

Some time ago, a favourite old hunter, belonging to Joseph Parley, Esq., of Taunton, being locked in a stable, on hearing the noise of the French horn and the cry of the hounds, began to be very restive: the ostler, going into the stable, judged that the spirited animal wanted some sport: he instantly put on his saddle, to which he affixed a large living monkey, and turned the horse loose, who, following the sound, soon joined the pack, and was one of the first in at the death of poor reynard; but the amazement of the sporting gentlemen was greatly heightened by observing the monkey holding the reins with all the dexterity of a true sportsman.

Mr. Trevor, of Horncastle, had a horse which, when turned out of his stable, was endued with such sagacity as to pump its own water to drink. As the pump was used by many persons in the course of every day, it is supposed the docile animal learned this extraordinary art by noticing them. "Since the yard which surrounds the pump is always open to public inspection, many persons have with admiration observed this sagacious horse lifting

up the handle with its nose, and then pressing it down in the same way. Such of our readers as may have experienced the corroding bitterness of that sorrow which the unkindness of prejudiced neighbours inflicts, will doubtless admire, as a pleasing trait in the character of this noble animal, the amiable instinct, the generous friendship, which inclines him to supply a fellow-companion, another horse in the same yard, with a daily banquet from the same trough, into which he pumps for it a sufficiency of water, before he attempts to satisfy himself! Such an instance of neighbourly kindness, exhibited by a much inferior race, must sure put to shame the hard-hearted and cruel amongst mankind." (*Boston Gazette.*)

Mr. J. Lane, of Frescombe, in the parish of Ashelworth, Gloucestershire, on his return home, put his horse into a field in which it had been accustomed to graze. A few days before this, the horse had been shod, all fours, but unluckily, had been pinched in the shoeing of one foot. In the morning Mr. Lane missed the horse, and caused an active search to be made in the vicinity, when the following singular circumstances transpired:—The animal, as it may be supposed, feeling lame, made his way out of the field by unhooking the gate with his mouth, and went straight to the same farrier's shop, a distance of a mile and a half. The farrier had no sooner opened his shed, than the horse, which had evidently been standing there some time, advanced to the forge and held up the ailing foot: the farrier instantly began to examine the hoof, discovered the injury, took off the shoe, and replaced it more carefully, on which the horse immediately turned about, and set off at a very merry pace for his well-known pasture. Whilst Mr. Lane's servants were on the search, they chanced to pass by the forge, and on mentioning their supposed loss, the farrier replied, "Oh, he has been here, and shod, and is gone home again," which on their return they found to be actually the case.

Horse-racing is of high antiquity, having been practised by our Saxon ancestors. In the time of Henry II. Smithfield was a kind of Newmarket for this sport. But in justice to the moderns it must be acknowledged that horse-racing, as a system of gambling, is among the glories of the seventeenth century, but at what precise time two horses began to supply the place of two dice is not known. The value and importance of this improvement will appear, when it is considered, that originally the practice was

simply for exercise, and the owners the riders. That intrepid, able, and honest race of young men, the jockies, is modern; they have the honour of first introducing the various uses of a rusty nail, or a pail of water seasonably administered.

The Ass.

THESE animals are found in their original wild state in the mountainous deserts of Tartary, the southern districts of India and Persia, and in some parts of Africa. In their native state they exhibit an appearance far superior to that of the same creature in a domestic state. Wild asses live in herds, each consisting of a chief, and several mares and colts, sometimes to the number of twenty. The male takes upon him the care of the herd, and is always on the watch.

The WILD ASS

Is most remarkable for the extreme wildness of his nature, and his amazing swiftness in running. His height is from three feet and a half to four feet, and his colour usually is grey. His head appears thick and large, with long ears, and his neck bends a little, and has a short dark-coloured mane. His eyes are extremely fine and sharp-sighted; his back is nearly straight; his tail is long, and has a tuft of hair at the end of it, and his legs are beautifully slender.

The senses of seeing, hearing, and smelling, in this animal, are peculiarly quick. He has an almost unconquerable love of liberty, and is so very high-spirited, that he will not submit to man without the greatest reluctance. He therefore avoids the inhabited country, and delights in the solitary wilderness, where he may rove at ease and with unrestrained freedom. Should he be attacked, or any attempt be made to take him, he darts off with such astonishing rapidity, as gives him more the appearance of flying than running. A greyhound, belonging to Sir Robert Ker Porter, chased a wild ass, near the spot where ancient Babylon formerly stood, for nearly three miles before he could overtake him. After allowing Sir Robert to survey him at the distance of a few yards, he darted off

again with the quickness of thought, capering, kicking, and sporting in his flight, as if the chase were his pastime.

“Who hath sent out the wild ass free?” saith the Almighty, “or who hath loosed the bands of the wild ass? Whose house I have made the wilderness, and the barren land his dwellings. He scorneth the multitude of the city, neither regardeth he the crying of the driver. The range of the mountains is his pasture, and he searcheth after every green thing.” (Job xxxix. 5—8.) Relying on his extraordinary powers, he fearlessly mocks the pursuit of the hunters, however numerous, because he can easily escape them. Suddenly he will stop in the midst of his career, and gaze at his pursuers till they approach; he will then kick up his heels and be gone with surprising swiftness. Again he will stop, as if daring them to make another attempt, and when they come close to him, he will dart away like an arrow shot from a bow: indeed he seldom can be taken without the assistance of art.

When supplies fail, the wild asses retire to the hills, where the herb flourishes, and the water flows. But in Eastern countries even these resources sometimes fail. The mountain herb is scorched up, the springs of water are exhausted. Under such trying circumstances, they seek relief on the tops of the rocks, or the summits of the highest mountains, to cool the fever which rages in their blood; and they will stand on these heights for hours together, with their heads erect, and their mouths open towards the sky, and suck in the air to allay their raging thirst, whilst their eyes, for the want of nourishment, lose their native brilliancy. “And the wild asses,” says Jeremiah, “did stand in the high places, they snuffed up the wind like dragons; their eyes did fail, because there was no grass.” (Jer. xiv. 6.)

Plants of the desert, such as the atriplex, kali, and chenopodium, and bitter milky herbs, are the favourite food of the wild ass. They also prefer salt water to fresh, and the words “barren land,” expressive of his dwelling (in the Book of Job), ought to be rendered literally *salt places*. The hunters generally lie in wait for the asses near the ponds of brackish water, to which they resort to drink.

In the Andes of South America, as well as in the Alps of Europe, the ass is an exceedingly useful animal in descending the steep and slippery rocks. They place their

fore feet in a posture, as if they were stopping themselves; they then also put their hinder feet together, but a little forward, as if they were about to lie down. In this attitude, having taken a survey of the road, they slide down with the swiftness of a meteor, at the same time regulating their course with the greatest nicety, and following exactly all the different windings of the road. All that the rider has to do, is to keep firm on the saddle, without checking the rein; as the least motion is sufficient to disorder the equilibrium of the animal, in which case both are precipitated to the bottom and perish.

The stubbornness for which asses are famed arises solely from ill usage, and not from any natural defect. An old man, who some years ago sold vegetables in London, used in his employment an ass, which conveyed his baskets from door to door. Frequently he gave the poor industrious animal a handful of hay, or a piece of bread, or greens. The old man had no need of any goad for the animal, and seldom indeed had he to lift up his hand to drive it on. This kind treatment was one day remarked to him, and he was asked if his beast was apt to be stubborn. "Ah! master," he replied, "it is of no use to be cruel; and as for stubbornness I cannot complain, for he is ready to do any thing, or to go any where. I bred him myself. He is sometimes skittish and playful, and once ran away from me: you will hardly believe it, but there were more than fifty people after him, attempting in vain to stop him; yet he turned back of himself, and never stopped till he ran his head kindly into my bosom."

Ass races are mentioned, it is believed for the first time, in the Spectator, consequently we may reckon them about a century old. The moderns have therefore some merit, of which they ought not be robbed; they have transferred the glories of Tothill Fields, to the sea-coast; and we now see the sober and sedate citizens of Margate and Brighton contemplating with a true *fellow feeling* this rational sport, and taking a metaphorical interest in the success of this animal.

The Hog.

TOOMER, the gamekeeper of Sir H. P. St. John Mildmay, succeeded in teaching a black New Forest sow to find

game, back, and stand, nearly as well as a pointer. This sow, when very young, took a great partiality to some pointer puppies that Toomer, the under gamekeeper of Broomy Lodge in the New Forest, was breaking. It played and often came to feed with them. From this circumstance, it occurred to Toomer, to use his own expression, "that, having broken many a dog as obstinate as a pig, he would try if he could also succeed in breaking a pig." This little animal would often go out with the animals to some distance from home; and Toomer would entice it further by a sort of pudding made of barley meal, which he carried in one of his pockets. The other he filled with stones, which he threw at the pig whenever she misbehaved, as he was not able to catch and correct her in the same manner as he did the dogs. He informed Sir Henry Mildmay, who communicated this account, that he found the animal very tractable, and that he soon taught her what he wished by this mode of punishment. Sir Henry Mildmay affirmed that he had frequently seen her out with Toomer, when she quartered her ground, stood when she came on game, having an excellent nose, and backed other dogs as well as he ever saw a pointer. When she came on the cold scent of game, she slackened her trot, and gradually dropped her ears and tail till she was certain, and she then fell down on her knees. So staunch was this animal, that she would frequently remain five minutes and upwards on her point. As soon as the game rose, she always returned to Toomer, grunting very loudly for her reward of pudding, if it was not immediately given to her. When Toomer died, his widow sent the pig to Sir Henry Mildmay, who kept it for three years, but never used it except for the purpose of amusing his friends. In doing this, a fowl was put into a cabbage-net, and hidden among the fern in some part of the park, and the extraordinary animal never failed to point, in the manner above described. Sir Henry was, at length, obliged to part with this sow, from a circumstance as singular as the other occurrences of her life. A great number of lambs had been lost, nearly as soon as they were dropped, and a person having been sent to watch the flock, the animal was detected in the very act of devouring a lamb. This carnivorous propensity was ascribed to her having been accustomed to feed with the dogs, and to partake of the flesh on which they were fed. Sir Henry sent her back to Mrs. Toomer, who sold her to Mr. Sykes,

of Brookwood in the New Forest, where she died the usual death of a pig, and was converted into bacon.”*

The tricks and wonderful performances of scientific dogs and horses, and their skill in spelling and grammar, are not very modern; but the *learned pig*, who flourished A.D. 1787 was a modern, and it is believed purely English invention. This eminent scholar, however, having no heirs, as his preceptor did not probably wish he should marry into an illiterate family, the breed has become extinct; and we have lived to see learning cast into the mire and trodden down under the hoofs of a swinish multitude.

The ETHIOPIAN HOG (*the Sus Æthiopicus* of Linnaeus) is an excessive fierce and savage species. It is similar in its general appearance to the common hog, but is distinguished from it by a pair of large semicircular lobes or wattles, situated beneath the eyes, and by a much broader, stronger, and more callous snout. Dr. Sparrman, when in Africa, pursued several pigs with the old sows, with the intention of shooting one of them; but though he failed in this object, their chase afforded him singular pleasure. The heads of the females, which had appeared before of a tolerable size, seemed on a sudden to have grown much larger and more shapeless. This momentary and wonderful change astonished him so much the more, as riding hard over a country filled with bushes and pits, he had given little attention to the manner in which it was brought about. He discovered afterwards, however, that each of the old ones, during the flight, had taken a pig in its mouth; and this circumstance explained also another subject of his wonder, which was that he had on a sudden missed all the pigs while he had been chasing the old ones, without perceiving any place to which they could have retreated. He was afterwards twice a witness to a similar occurrence.

CETACEOUS ANIMALS.

The WHALE.

THE fidelity of the male and female whale to each other exceeds that of most animals. “Some fishermen,” as Ander-

* Memoirs of British Quadrupeds.

son informs us, in his History of Greenland, "having struck one of two whales, a male and a female, that were in company together, the wounded animal made a long and terrible resistance; with a single blow of its tail it upset a boat containing three men, by which all went to the bottom. The other still attended its companion, and lent it every assistance, till at last the animal that was struck sank under the number of its wounds, while its faithful associate, disdaining to survive the loss, stretched itself upon the dead whale, and shared its fate."

The BLUNT-HEADED CACHALOT, or SPERMACETI WHALE.

IN March, 1781, there were thirty-two spermaceti whales cast on shore, during a violent gale of wind, in the neighbourhood of Audienne, in France. Their bellowing was heard to the distance of more than a league. Two men, who happened to be walking along the coast, not far from the place where the animals were stranded, not conceiving what they could possibly be, were thrown into the utmost agitation and alarm at their noise, seeing them floundering in the shallow water, and beating about the sand and mud in all directions, at the same time occasionally throwing water from their spiracles to an immense height, and with tremendous noise. They were all young animals, but the smallest of the whole measured upwards of thirty feet, and the largest nearly fifty feet in length. They were not able to regain the sea; but they continued alive on the sand for upwards of twenty-four hours.

According to Fabricius, the tremendous white shark, the dread of all the other inhabitants of the ocean, flies precipitately from the blunt-headed cachalot; and he informs us that, in the excess of its alarm, it will often dart to the bottom of the sea, and endeavour to conceal itself in the sand or mud; that it will sometimes incautiously throw itself against the rocks, with such force as to occasion its death; and that, notwithstanding its usual voracity, the shark will not dare to approach even the dead body of the cachalot.

The GRAMPUS.

WALLER has recorded in one of his poems a story (founded on facts) of the parental affection of the grampus. A grampus and her cub had got into an arm of the sea, where, by the desertion of the tide, they were enclosed on every side: the men on shore saw their situation, and, with such weapons as they could collect, immediately attacked them, and the surrounded water was soon stained with the blood of the wounded animals. Amidst their efforts to escape, the old one at length succeeded in forcing herself over the shallow into the ocean; but though herself in safety, she would not abandon her offspring; she therefore again rushed in; and seemed resolved, since she could not prevent, at least to share, the fate of her young one. The tide, however, coming in, conveyed them both off with safety.

B I R D S.

The CONDOR or CONDUR.

THESE prodigious birds, in the countries which they inhabit, supply the place of wolves: and they are equally dreadful and ferocious with the wolves of other climates. Happily for mankind, however, even in the countries which they principally inhabit, they are extremely scarce. The wings measure from point to point, when extended, twelve feet.

"They are taken," says Caldcleugh, in his Travels in South America, "in two or three ways by the natives, who find them extremely destructive to the young lambs and kids, which they easily carry off in their talons; and there are not wanting instances of young children having been treated in the same manner. The more usual mode of capture, is by laying the skin of an ox or horse, freshly killed, on the ground, under which an Indian conceals himself; another remains in ambush at a distance. The bird, attracted by the smell of the skin, perches upon it, and is instantly seized by the man, who being thus protected, holds him down, while his comrade sallies out and despatches him with a club. It is reported that the ancient Peruvians made figures of children in clay, mixed up with hair and fibres of trees, upon which the bird pounced, and was afterward unable to extricate himself. One of these immense animals was sent to England in the same ship with me, and on several occasions showed his carnivorous and rapacious habits. He seized a sailor by the lip, and attacked a large albitross, which had been taken on board: running his beak into the eye of the latter, he ate him up—bones, feathers, and all, *usque ad unguem*, to the very claws."

Father Feuillée shot one of these birds in the valley of Ilo, in Peru; of which he gives the following account:—"I discovered," says he, "in the valley of Ilo, in Peru, a condor perched on a high rock before me; I approached within musket shot, and fired; but as my piece was only loaded with swan shot, the lead was not able sufficiently to pierce the bird's feathers. I perceived, however, by its manner of flying, that it was wounded; as it rose heavily,

and with a good deal of difficulty reached another rock, about five hundred yards distant, upon the shore: I therefore loaded again with ball, and hit the bird under the throat, which made it mine. I accordingly ran up to seize it; but even in death it was terrible, and defended itself on its back, with its claws extended against me; so that I scarce knew how to lay hold of it. Had it not been mortally wounded, I should have found it no easy matter to take it; but I at last dragged it down from the rock, and, with the assistance of one of the seamen, carried it to the tent, to make a coloured drawing.

“The wings of this bird, which I measured exactly, were eleven feet four inches, from one extremity to the other: the great feathers, of a beautiful shining black, were two feet two inches long. The thickness of the beak was proportionable to the rest of the body; the length about four inches; the point looked downwards, and was white at its extremity, the other part being of a jet black. A short down, of a brown colour, covered the head; the eyes were black, and surrounded with a circle of reddish brown; the feathers on the breast, neck, and wings, were of a light brown; those on the back rather darker; its thighs were covered with brown feathers down to the knee: the thigh-bone was ten inches long; the leg five inches: the toes were three before and one behind: the latter was an inch and a half long, with a single joint; and the claw with which it was armed was black, and three-quarters of an inch; the other claws were in the same proportion; and the leg and toes covered with black scales.

“These birds usually frequent the mountains, where they find their prey. They never descend to the sea-shore but in the rainy season; sensible of cold they repair there for warmth. Though these mountains are situated in the torrid zone, the cold is often very severe; for throughout almost the whole year they are covered with snow; but especially during the winter, when it is in great depth upon them. The small quantity of nourishment which these birds find on the sea-coast, except when the tempest drives in some of the larger fishes, obliges the condor to remain there but a short time. He usually comes to the coast at the approach of evening, remains there all night, and returns again in the morning.”

This condor, however, seems to have been much inferior in size to those described by Acosta, Garcilasso,

Demarchais, and some other travellers, who affirm they have seen them eighteen feet from tip to tip of the wing; that their beaks are so strong and sharp, that they can easily pierce the body of a cow; that two of them can attack and devour one entirely; that they sometimes singly oppose a man. The Indians, in like manner, who are more accustomed to see them, declare, that they can carry off a deer or a calf as easily as an eagle does a rabbit; that their bodies are as large as a sheep; that their flesh is tough, and smells like carrion; their sight piercing, and their looks cruel. The Spaniards themselves seem afraid of their depredations, and are not without instances of their carrying off children of ten or twelve years old. Their flight is terrible: and, when they alight, one is stunned with their noise. It is reported that the Indians catch them by working a piece of viscous clay into the form of a child, upon which they dart with such rapidity that their claws are entangled, so as to prevent their escape. De Solis, alluding to this bird, says, that there were among the curiosities of the emperor of Mexico, birds of such extraordinary fierceness and size, as to appear monsters; and that he had been informed, that each of them could devour a sheep at a single meal.

Mr. Ray, and almost all the naturalists after him, have classed the condor in the genus of the vultures, on account of the nakedness of his head and neck. His dispositions, however, and habits, seem as strongly to plead his affinity to the eagles; he is rapid, fierce, and courageous, and, like them, lives by the chase. His preferring live prey to carrion, his activity, and every habit, seem to bring him nearer to the eagle than to the vulture tribes.

However this may be, it is probable this extraordinary bird is not confined solely to South America. Some are of opinion, that it is also to be found in Africa, Asia, and even in some parts of Europe. Garcilasso imagines it to be the same bird with the roc, so famous in the fables of the Arabian writers. Probably the great bird mentioned in the voyages to the South Sea, which is said to be nearly as large as an ostrich, is the same with the condor. The bird of prey, in the neighbourhood of Tarnassar, in the East Indies, and the vulture of Senegal, which carries off children, are of the same species with that above described. Several authors mention a similar bird, sometimes seen in Russia, Lapland, and Germany. Buffon mentions a large bird shot in France, eighteen feet in breadth, which he sup-

poses to be the condor, not only on account of its size, but of its pie colour, resembling those birds in Peru. This naturalist deems it scarcely probable, that a bird which claims the first rank in this class of beings, should be confined to a single district of the earth.

THE FALCON OR EAGLE TRIBE.

The SECRETARY FALCON.

M. LE VAILLANT was witness to an obstinate engagement between a secretary falcon and a serpent. The battle was conducted with great address on both sides, but the serpent, finding his inferiority in strength, at last, with all the cunning common to his tribe, endeavoured to regain his hole; while his antagonist, guessing his design, placed herself at one leap before the reptile and his hole. At length, finding his attempt to escape of little avail, the serpent boldly erected himself to intimidate the bird, and, hissing dreadfully, displayed his menacing throat, inflamed eyes, and a head swollen with rage and venom. Sometimes this threatening appearance produced a momentary suspension of hostilities; but the bird soon returned to the charge, and, covering her body with one of her wings as a buckler, struck her enemy with the bony protuberance of the other. "I saw him at last," says M. Le Vaillant, "stagger and fall; the conqueror then fell upon him to dispatch him, and with one stroke of her beak laid open his skull." At this instant our traveller fired at and killed the bird. In her craw he found eleven tolerably large lizards; three serpents, each as long as his arm; eleven small tortoises, most of which were about two inches in diameter; and a number of locusts and other insects, several of them sufficiently whole to be worth preserving, and adding to his collection. He observed, too, that in addition to this mass of food, the craw contained a sort of ball, as large as the head of a goose, formed of the vertebrae of serpents and lizards, shells of tortoises, and wings, claws, and shields of different kinds of beetles.

The secretary is easily tamed, and when well fed it not only lives with poultry on amicable terms, but, when it sees any of them quarrelling, it will even run to separate them, and restore order.

The BEARDED EAGLE, or LAMMER-GEYER.

THE bearded eagles, to which the Swiss peasants have given the title of *lammer-geyer*, or *lamb-vultures*, are inhabitants of the highest parts of the great chain of Alps, which separates Switzerland. One that was caught in the canton of Glarus measured nearly seven feet from the tip of its beak to the extremity of its tail, and eight feet and a half from tip to tip of its wings; some have been shot much larger. Some suppose the roc of eastern stories to be a variety of this bird.

It appears to be a variety of this bird, of which Mr. Bruce gives the following description. He saw it on the highest part of the mountain of Lamalmon, not far from Gondar, the capital of Abyssinia. The natives call it, on account of the tuft of hair that grows beneath its beak, *abou duch'n*, or *father long-beard*. It measured, from wing to wing, eight feet four inches; and from the tip of its beak to the extremity of its tail, four feet seven inches. It weighed twenty-two pounds.

"This noble bird," says he, "was not an object of any chase or pursuit, nor stood in need of any stratagem to bring him within our reach. Upon the highest top of the mountain Lamalmon, while my servants were refreshing themselves from that toilsome rugged ascent, and enjoying the pleasure of a most delightful climate, eating their dinner in the open air, with several large dishes of boiled goat's flesh before them, this enemy, as he turned out to be to them, suddenly appeared; he did not stoop rapidly from a height, but came flying slowly along the ground, and sat down close to the meat, within the ring the men had made round it. A great shout, or rather cry of distress, called me to the place. I saw the eagle stand for a minute, as if to recollect himself; while the servants ran for their lance and shields, I walked up as nearly to him as I had time to do. His attention was fixed upon the flesh. I saw him put his foot into the pan, where there was a large piece, in water, prepared for boiling; but finding the smart, which he had not expected, he withdrew it, and forsook the piece that he held.

"There were two large pieces, a leg and a shoulder, lying upon a wooden platter: into these he thrust both his claws, and carried them off; but I thought he still looked wistfully at the large piece which remained in the warm

water. Away he went slowly along the ground, as he had come. The face of the cliff, over which criminals are thrown, took him from our sight. The Mahometans that drove the asses were much alarmed, and assured me of his return. My servants, on the other hand, very unwillingly expected him, and thought he had already taken more than his share.

“As I had myself a desire of more intimate acquaintance with this bird, I loaded a rifle-gun with ball, and sat down close to the platter by the meat. It was not many minutes before he came, and a prodigious shout was raised by my attendants, ‘He is coming, he is coming,’ enough to have dismayed a less courageous animal. Whether he was not quite so hungry as at his first visit, or suspected something from my appearance, I know not; but he made a short turn, and sat down about ten yards from me, the pan with the meat being between me and him. As the field was clear before me, and I did not know but his next move might bring him opposite to some of my people, so that he might actually get the rest of the meat, and make off, I shot him with the ball through the middle of his body, about two inches below the wing, so that he lay down upon the grass without a single flutter.”

The CHAUNTING FALCON,

WHICH is a native of Caffraria, is remarkable for the song of the male during breeding time, which it utters every morning and evening, and sometimes all night.

THE OWL TRIBE.

The GREAT HORNED or EAGLE OWL.

M. CRONSTEDT resided several years at a farm in Sudermania, near a steep mountain, on the summit of which two eagle owls had their nest. One day in July, a young owl, having quitted its nest, was seized by some of his servants. He shut it up in a large hen-coop; next morning he found a young partridge lying dead before the door of the coop. He immediately concluded that it had been

brought there by the parents, who, by its cry, had discovered the place where their young one was confined. The same attention was paid to it for fourteen successive nights. The game brought was generally young partridges, newly killed, but sometimes a little spoiled. At one time a moor-fowl, which was yet warm, was brought; at another time a putrid lamb. Whenever M. Cronstedt or his servants watched at the window, which they did for several nights, the old birds were cunning enough to discover them, and discontinued their visits; but when they were not watched, they never failed to come. In August, which is the period when all birds of prey abandon their young to their own exertions, the parents discontinued their attentions.

The WHITE, or SCREECH OWL.

THE Mongul and Kalmuck Tartars pay almost divine honours to the white owl; attributing to it the preservation of the great Jenghis Khan. That prince, when surprised and defeated by his enemies, was compelled to seek concealment in a coppice, an owl settled on the bush under which he had hidden himself. This circumstance induced his pursuers not to search there, since they supposed it impossible that that bird would perch where any man was concealed. Thus Jenghis escaped, and thenceforth his countrymen held the bird sacred.

The TYRANT SHRIKE.

ALTHOUGH this bird bears the character of great bravery and courage, yet from the following anecdote related in a letter from Mr. Abbot, of Georgia, to Dr. Latham, this character does not appear to be always deserved. "A tyrant shrike," says he, "having built its nest on the outside of a large lofty pine, I was one day considering how I could procure its eggs; when, viewing the nest, I perceived a crow alight on the branch, break and suck the eggs, and displace the nest, appearing all the while unconcerned, notwithstanding both the cock and hen continued flying at and striking him with their bills all the while; and as soon as the crow had completed the robbery he departed."

The GUACHARO.

THE guacharo, which M. Lavaysse describes as a new species of *caprimulgus*, is of the size of a fowl, has the mouth of the goatsucker, but differs very specifically in the strength of its beak, which contains a double tooth, its force of voice, and its feet, which are without the membranes that unite the anterior phalanxes. Its plumage is of a dark bluish grey, with small streaks and specks of black. Large heart-shaped white spots, bordered with black marks on the head, wings, and tail. Its eyes, which are blue, and smaller than those of the goatsucker, are hurt by the blaze of day. The spread of the wings is three feet and a half. It is the only instance of a nocturnal bird among the genus *passeres dentirostrati*, and almost the only frugiferous nocturnal bird that is known. The conformation of its feet indicates that it does not hunt like our owls. It feeds on very hard fruits, and is not known to pursue insects. They are found in the celebrated valley of Caripe, in the great cavern of Guacharo (Cueva del Guacharo), which the natives call a *mine of fat*. It quits the cavern at nightfall, especially when the moon shines. "It is difficult," says Humboldt, "to form an idea of the horrible noise occasioned by thousands of these birds in the dark part of the cavern: it can only be compared to the croaking of our crows, which in the pine forests of the north live in society, and construct their nests upon trees, the tops of which touch each other. The shrill and piercing cries of the guacharoës strike upon the vaults of the rocks, and are repeated by the echo in the depth of the cavern. The Indians showed us the nests of these birds, by fixing torches to the end of a long pole. These nests were fifty or sixty feet high above our heads, in holes in the shape of funnels, with which the roof of the grotto is pierced like a sieve. The noise increased as we advanced, and the birds were affrighted by the light of the torches of copal. When this noise ceased a few minutes around us, we heard at a distance the plaintive cries of the birds roosting in other ramifications of the cavern. It seemed as if these bands answered each other alternately.

"The Indians enter into the Cueva del Guacharo once a year, near midsummer, armed with poles, by means of which they destroy the greater part of the nests. At this

season, several thousands of birds are killed ; and the old ones, as if to defend their brood, hover over the heads of the Indians, uttering terrible cries. The young which fall to the ground are opened on the spot. Their peritoneum is found extremely loaded with fat, a layer of which forms a kind of cushion between the legs. At the period called at Caripe, the oil harvest, the Indians build huts with palm leaves, near the entrance, and on the porch of the cavern. These, with a fire of brushwood, they melt in pots of clay the fat of the young birds just killed. It is half-liquid, transparent, inodorous, and so pure that it may be kept more than a year without becoming rancid. At the convent of Caripe no other oil is used in the kitchen ; and we never observed that it gave the food a disagreeable taste or smell. The quantity collected little corresponds with the carnage made every year in the grotto by the Indians. It appears that they do not obtain above one hundred and fifty, or one hundred and sixty bottles of very pure *mantea* (lard) ; the rest, less transparent, is preserved in large earthen vessels. At Caripe, the use of the oil of guacharo is very ancient, and the missionaries have only regulated the method of extracting it. In conformity to their system, the Indians are obliged to furnish guacharo oil for the church lamp : the rest, we were assured, is purchased of them. The race of the guacharo would long ago have been extinct, had not several circumstances contributed to its preservation. The natives, restrained by their superstitious ideas, have seldom the courage to penetrate far into the grotto. It appears, also, that birds of the same species dwell in neighbouring caverns, which are too narrow to be accessible to man. Perhaps the great cavern is re-peopled by colonies that abandon the small grottoes ; for the missionaries assured us, that hitherto no sensible diminution of the birds had been observed. Young guacharo have been sent to the port of Cumana, and have lived there several days without taking any nourishment ; the seeds offered to them not suiting their taste. When the crops and gizzards of the young birds are opened in the cavern, they are found to contain all sorts of hard and dry fruits, which furnish, under the singular name of guacharo seed (*semilla del guacharo*), a very celebrated remedy against intermittent fevers. The old birds carry these seeds to their young. They are carefully collected, and sent to the sick at Cariaco, and other places of the low regions, where fevers are prevalent."

THE PARROT TRIBE.

The GUINEA, or LITTLE RED-HEADED PARROT.

A MALE and female of this species were lodged together in a large cage. They both usually sat together on the same perch. When one descended for food the other followed, and they returned together, and all their actions showed the greatest attachment. At the end of four years after they had been confined, the female fell into a state of languor, which had every symptom of old age; her legs swelled, and knots appeared upon them. It being no longer possible for her to descend and take her food as formerly, the male assiduously brought it to her in his bill, and delivered it into hers. Her infirmities increased every day, and at length she became unable to sit upon her perch. She remained now crouched at the bottom, and from time to time made a few useless efforts to regain the lower perch; while the male, who remained close by her, seconded these feeble attempts with all his power. Sometimes he seized with his bill the upper part of her wing, to try to draw her up to him; sometimes he took hold of her bill, and attempted to raise her up, repeating his efforts for that purpose several times. His countenance, his gestures, his continual solicitude; every thing, in short, indicated, in this affectionate bird, an ardent desire to aid the weakness of his companion, and to alleviate her sufferings. But the scene became still more interesting, when the female was at the point of expiring. Her unfortunate partner went round and round her without ceasing; he redoubled his assiduities and his tender cares; he attempted to open her bill, in order to give her nourishment; his emotion every instant increased; he went to her, and returned with the most agitated air, and with the utmost inquietude; at intervals he uttered the most plaintive cries; at other times, with his eyes fixed upon her, he preserved a sorrowful silence. His faithful companion at length expired: he languished from that time, and survived her only a few months.

The COMMON ASH-COLOURED PARROT.

MR. LOCKE relates the following story :—" During the government of Prince Maurice in Brazil, I heard of an old parrot that was much celebrated for answering many of the common questions that were put to it like a rational being. The prince had the curiosity to have it sent for. When it was introduced into the room where he and several Dutchmen were sitting, it immediately exclaimed in the Brazilian language, 'What a company of white men are here!' They asked it, 'Who is that man?' (pointing to the prince), the parrot answered, 'Some general or other.' When the attendants carried it up to him, he asked him, through the medium of an interpreter (for he was ignorant of the language), 'From what place do you come?' the parrot answered, 'From Marignan.' The prince asked, 'To whom do you belong?' it answered, 'To a Portuguese.' He asked again, 'What do you do there?' it answered, 'I look after chickens." The prince, laughing, exclaimed, 'You look after chickens!' the parrot answered, 'Yes, I; and I know well enough how to do it;' clucking at the same time, in imitation of the noise made by the hen, to call together her young ones."

Colonel O'Kelly bought a parrot at Bristol for a hundred guineas, which not only repeated a number of sentences, but answered many questions; it was also able to whistle many tunes. It beat time with all the appearance of science; and so accurate was its judgment, that, if by chance it mistook a note, it would revert to the bar where the mistake was made, correct itself, and still beating regular time, go through the whole with wonderful exactness. Its death was thus announced in the General Evening Post for October 9, 1802:—"A few days ago died, in Half-moon Street, Piccadilly, the celebrated parrot of Colonel O'Kelly. This singular bird sang a number of songs in perfect time and tune. She could express her wants articulately, and give her orders in a manner approaching nearly to rationality. Her age was not known; it was, however, more than thirty years, for, previously to that period Mr. O'Kelly bought her at Bristol for a hundred guineas. The colonel was repeatedly offered five hundred guineas a year for the bird, by persons who wished to make a public exhibition of her; but this, out

of tenderness to the favourite, he constantly refused. The bird was dissected by Dr. Kennedy, and Mr. Brookes ; and the muscles of the larynx, which regulate the voice, were found, from the effect of practice, to be uncommonly strong."

THE CROW TRIBE.

The RAVEN.

THE following anecdote is related by Mr. White:—
“ In the centre of a grove, near Selborne, there stood an oak, which, though on the whole shapely and tall, bulged out into a large excrescence near the middle of the stem. On this tree a pair of ravens had fixed their residence for such a number of years, that the oak was distinguished by the title of ‘The Raven-tree.’ Many were the attempts of the neighbouring youths to get at this nest : the difficulty abetted their inclinations, and each was ambitious of surmounting the arduous task ; but, when they arrived at the swelling, it jutted out so in their way, and was so far beyond their grasp, that the boldest lads were deterred, and acknowledged the undertaking to be too hazardous. Thus the ravens continued to build nest upon nest, in perfect security, till the fatal day on which the wood was to be levelled. This was in the month of February, when those birds usually sit. The saw was applied to the trunk, the wedges were inserted into the opening, the woods echoed to the heavy blows of the beetle or mallet, the tree nodded to its fall ; but still the dam persisted in sitting. At last, when it gave way, the bird was flung from her nest ; and though her parental affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground.”

The ROOK.

AT Dalham Tower, in Westmoreland, the seat of Daniel Wilson, Esq. there were two groves adjoining to the park, one of which had been long the resort of a number of herons. In the other was a large rookery. In 1775

the trees of the heronry were cut down, and the young brood perished by the fall of the timber. The old birds, unwilling to quit the place, endeavoured to effect a settlement in the rookery. The rooks made an obstinate resistance; but, after a desperate contest, in the course of which many of the rooks and some of the herons were killed, the latter gained a settlement on some of the trees, and built their nests afresh. The next season a similar conflict took place; in which likewise the herons were victorious. Since this time peace has existed between them; the rooks have relinquished part of the grove to the herons, who confine themselves within their bounds; and the two communities appear to live together in as much harmony as they did before the dispute.

In March, the rookery is all in motion with the pleasing labour of building and repairing nests. It is highly amusing to observe the tricks and artifices of this thievish tribe in defending or plundering the materials of their new habitations. A society, with such a license of theft, one would imagine could not possibly subsist; and that they are sometimes obliged to interpose the public will, to control the private dispositions of individuals, is shown in the following story. There was once in a rookery a pair of birds, who, in the building time, instead of going out in search of materials, kept at home, and, watching the opportunity, plundered every unguarded nest; thus building their own habitation by contributions levied upon the industry of their neighbours. This had continued some time, and the robbers had hitherto escaped with impunity: their nest was just finished, when the rest of the society, by common consent, made an attack on the depredators, beat them soundly, demolished their nest, and expelled them ignominiously from the rookery.

These birds are accused by the farmer of doing much injury by plucking up the young corn, and other springing vegetables. But of late it has become a general opinion that this mischief is fully repaid by their diligence in picking up the grubs of various insects, which, if allowed to grow to maturity, would occasion much greater damage. For this purpose they are seen frequently following the plough, and darkening with their numbers the newly turned-up land; in which occupation, near the sea-coast, they are frequently joined by multitudes of gulls.

Dr. Percival, in his "Dissertations," relates the follow-

ing anecdote of these sagacious animals:—"A large colony of rooks," he says, "had subsisted many years in a grove on the banks of the river Irwell, near Manchester. One serene evening I placed myself within the view of it, and marked with attention the various labours, pastimes, and evolutions of this crowded society. The idle members amused themselves with chasing each other through endless mazes; and in their flight, they made the air sound with an infinitude of discordant noises. In the midst of these playful exertions it unfortunately happened that one rook, by a sudden turn, struck his beak against the wing of another. The sufferer instantly fell into the river. A general cry of distress ensued. The birds hovered, with every expression of anxiety, over their distressed companion. Animated by their sympathy, and, perhaps, by the language of counsel known to themselves, he sprang into the air, and by one strong effort reached the point of a rock, which projected into the water. The joy became loud and universal; but, alas! it was soon changed into notes of lamentation; for the poor wounded bird, in attempting to fly towards his nest, again dropped into the river, and was drowned, amidst the moans of his whole fraternity."

The RED-LEGGED CROW, or CORNISH CHOUGH.

THE Cornish chough is the most slender, graceful, and finely proportioned of all the crow species. Its legs, toes, and bill, are of a strong vermillion; and the bony substances of these parts are clear even to transparency. It may be domesticated when taken young. At the approach of any thing strange it shrieks aloud, as if apprehensive of danger; but when free from all agitation, its chatter is mild, soft, and engaging, especially when it applies for meat. It is remarkably courteous to its friends, but it will not submit to the caresses of a stranger. In its wild state it seems instinctively apprehensive of danger, constantly building its nest in the most inaccessible parts of the cliffs. On all occasions it retires to roost at an early hour. It is fond of shelter, and in stormy weather it is rarely seen; but when the tempest subsides, it marches in state along the margin of the cliffs, or upon such hills or greens as are secure in solitude, and furnish an extensive prospect. In its tame state the same instinctive

properties are visible, only they appear in another form. Docile, regular, and constant in its application for food at the accustomed time, it affords amusement to those who feed it; and when permitted, it will furnish presages of serene weather by mounting on the tops of houses, and enjoying the air and the surrounding prospect. But with all these amiable qualities, Camden calls it "an incendiary;" and Carew accuses it of theft, and calls it "the slander of our country." It is certainly much captivated by glittering objects; and it will not hesitate to remove such pleasing articles as it can carry, as money, papers, and sticks for firing. Perched on houses covered with thatch, it frequently commits many depredations; piercing with its long bill the moist and rotten parts, dispersing them in quest of insects, and sometimes tearing the lime from the walls in order to reach either flies or spiders that are concealed within. Dr. Borlase, however, thinks that this bird has been traduced, the tricks of the jackdaw having been imputed to it.

THE CUCKOO TRIBE.

The COMMON CUCKOO.

THE following observations form an excellent illustration of the natural history of the cuckoo:—"The first appearance of the cuckoos in Gloucestershire, the part of England where these observations were made, is about the 17th of April. The song of the male, which is well known, soon proclaims its arrival. The song of the female, if the peculiar notes of which it is composed may be so called, is widely different, and has been so little attended to, that I believe few are acquainted with it. I know not how to convey a proper idea of it, by a comparison with the notes of any other bird; but the cry of the dab-chick bears the nearest resemblance to it.

"The cuckoo makes choice of the nests of a great variety of small birds. I have known its egg entrusted to the care of the hedge-sparrow, the water-wagtail, the tit-lark, the yellow-hammer, the green-linnet, and the winchat. Among these it generally selects the three former; but shows a much greater partiality to the hedge-sparrow

than to any of the rest: therefore, for the purpose of avoiding confusion, this bird only, in the following account, will be considered as the foster-parent of the cuckoo, except in instances which are particularly specified.

“ The hedge-sparrow commonly takes up four or five days in laying her eggs. During this time, generally after she has laid one or two, the cuckoo contrives to deposit her egg among the rest, leaving the future care of it entirely to the hedge-sparrow. This intrusion often occasions some discomposure; for the old hedge-sparrow at intervals, while she is sitting, not unfrequently throws out some of her own eggs, and sometimes injures them in such a way that they become addled; so that it more frequently happens, that only two or three hedge-sparrow's eggs are hatched with the cuckoo's, than otherwise; but whether this be the case or not, she sits the same length of time as if no foreign egg had been introduced, the cuckoo's egg requiring no longer incubation than her own. However, I have never seen an instance where the hedge-sparrow has either thrown out or injured the egg of the cuckoo. When the hedge-sparrow has sat her usual time, and disengaged the young cuckoo and some of her own offspring from the shell,* her young ones, and any of her eggs that remain unhatched, are soon turned out, the young cuckoo remaining possessor of the nest, and sole object of her future care. The young birds are not previously killed, nor are the eggs demolished; but all are left to perish together, either entangled about the bush which contains the nest, or lying on the ground under it.

“ The early fate of the young hedge-sparrows is a circumstance that has been noticed by others, but attributed to wrong causes. A variety of conjectures have been formed upon it. Some have supposed the parent cuckoo the author of their destruction; while others, as erroneously, have pronounced them smothered by the disproportioned size of their fellow-nestling. Now the cuckoo's egg being not much larger than the hedge-sparrow's, it necessarily follows, that at first there can be no great difference in the size of the birds just burst from the shell. Of the fallacy of the former assertion also I was some years ago convinced, by having found that many cuckoo's eggs were hatched in the nests of other birds, after the

* The young cuckoo is commonly hatched first.

old cuckoo had disappeared ; and by seeing the same fate then attend the nestling sparrows as during the appearance of old cuckoos in this country.

“ Having found that the old hedge-sparrow commonly throws out some of her own eggs after her nest has received the cuckoo's, and not knowing how she might treat her young ones, if the young cuckoo was deprived of the power of dispossessing them of the nest, I made the following experiment. July 9. A young cuckoo, that had been hatched by a hedge-sparrow about four hours, was confined in the nest in such a manner that it could not possibly turn out the young hedge-sparrows which were hatched at the same time, though it was almost incessantly making attempts to effect it. The consequence was, the old birds fed the whole alike, and appeared in every respect to pay the same attention to their own young as to the young cuckoo, till the 13th, when the nest was unfortunately plundered.

“ The smallness of the cuckoo's egg, in proportion to the size of the bird, is a circumstance that hitherto, I believe, has escaped the notice of the ornithologist. So great is the disproportion, that it is in general smaller than that of the house-sparrow ; whereas the difference in size of the birds is nearly five to one. I have used the term, in general, because eggs produced at different times by the same bird vary much in size. I found a cuckoo's egg so light that it weighed only 43 grs., and one so heavy that it weighed 55 grs. The colour of the cuckoo's egg is extremely variable. Some, both in ground and penciling, very much resemble the house-sparrow's ; some are indistinctly covered with bran-coloured spots ; and others are marked with lines of black, resembling in some measure the egg of the yellow-hammer.

“ The circumstance of the young cuckoo's being destined by nature to throw out the young hedge-sparrows, seems to account for the parent-cuckoo's dropping her egg in the nests of birds so small as those I have particularized. If she were to do this in the nest of a bird which produced a large egg, and consequently a large nestling, the young cuckoo would probably find an insurmountable difficulty in solely possessing the nest, as its exertion would be unequal to the labour of turning out the young birds.* Besides, though many of the larger birds might

* I have known an instance in which a hedge-sparrow sat on a cuckoo's egg and one of her own. Her own egg was hatched five days before the

have fed the nestling cuckoo very properly, had it been committed to their charge, yet they could not have suffered their own young to have been sacrificed for the accommodation of the cuckoo in such great numbers as the smaller ones, which are so much more abundant; for though it would be a vain attempt to calculate the numbers of nestlings destroyed by means of the cuckoo, yet the slightest observation would be sufficient to convince us that they must be very large. Here it may be remarked, that though nature permits the young cuckoo to make this great waste, yet the animals thus destroyed are not thrown away, or rendered useless. At the season when this happens, great numbers of tender quadrupeds and reptiles are seeking provisions; and if they find the callow nestling which have fallen victims to the young cuckoo, they are furnished with food well adapted to their peculiar state.

"It appears a little extraordinary, that two cuckoo's eggs should ever be deposited in the same nest, as the young one produced from one of them must inevitably perish; yet I have known two instances of this kind, one of which I shall relate. June 27, 1787, two cuckoos and a hedge-sparrow were hatched in the same nest this morning; one hedge-sparrow's egg remained unhatched. In a few hours after, a contest began between the cuckoos for the possession of the nest, which continued undetermined till the next afternoon, when one of them, which was somewhat superior in size, turned out the other, together with the hedge sparrow and the unhatched egg. This contest was very remarkable. The combatants alternately appeared to have the advantage, as each carried the other several times nearly to the top of the nest, and then sunk down again, oppressed by the weight of its burden; till at length, after various efforts, the strongest prevailed, and was afterwards brought up by the hedge-sparrows.

"I come, now, to consider the principal matter that has agitated the mind of the naturalist respecting the cuckoo; why, like other birds, it should not build a nest, incubate

cuckoo's, when the young hedge-sparrow had gained such a superiority in size, that the young cuckoo had not power sufficient to lift it out of the nest till it was two days old, by which time it had grown very considerably. This egg was probably laid by the cuckoo several days after the hedge-sparrow had begun to sit; and even in this case it appears that its presence had created the disturbance before alluded to, as all the hedge-sparrow's eggs were gone except one.

its eggs, and rear its own young! There is certainly no reason to be assigned, from the conformation of this bird, why, in common with others, it should not perform all these several offices: for it is in every respect perfectly formed for collecting materials and building a nest. Neither its external shape nor internal structure prevents it from incubation; nor is it by any means incapacitated from bringing food to its young. It would be needless to enumerate the various opinions of authors on this subject, from Aristotle to the present time. Those of the ancients appear to be either visionary, or erroneous; and the attempts of the moderns towards its investigation have been confined within very narrow limits; for they have gone but little farther in their researches than to examine the constitution and the structure of the bird; and having found it possessed a capacious stomach with a thin external covering, they concluded that the pressure on this part, in a sitting posture, prevented incubation. They have not considered that many of the birds which incubate, have stomachs analogous to those of cuckoos: the stomach of the owl, for example, is proportionably capacious, and is almost as thinly covered with external integuments. Nor have they considered that the stomachs of nestlings are always much distended with food; and that this very part, during the whole time of their confinement to the nest, supports, in a great degree, the weight of the whole body; whereas, in a sitting bird, it is not nearly so much pressed on; for the breast in that case fills up chiefly the cavity of the nest, for which purpose, from its natural convexity, it is admirably well fitted.

“These observations, I presume, may be sufficient to show that the cuckoo is not rendered incapable of sitting, through a peculiarity either in the situation or formation of the stomach; yet, as a proof still more decisive, I shall state the following fact. In the summer of the year 1786, I saw, in the nest of the hedge-sparrow, a cuckoo, which, from its size and plumage, appeared to be nearly a fortnight old. On lifting it up in the nest, I observed two hedge-sparrow’s eggs under it. At first I supposed them part of the number which had been sat on by the hedge-sparrow with the cuckoo’s egg, and that they had become addled, as birds frequently suffer such eggs to remain in their nests with their young; but on breaking one of them I found it contained a living foetus; so that of

course these eggs must have been laid several days after the cuckoo was hatched, as the latter now completely filled up the nest, and was by this peculiar incident performing the part of a sitting bird.*

“Having under my inspection, in another hedge-sparrow’s nest, a cuckoo, about the same size as the former, I procured two wagtail’s eggs which had been sat on a few days, and had them immediately conveyed to the spot, and placed under the cuckoo. On the 9th day after the eggs had been in this situation, the person appointed to superintend the nest, as it was some distance from the place of my residence, came to inform me, that the wagtails were hatched. On going to the place, and examining the nest, I found nothing in it but the cuckoo and the shells of the wagtail’s eggs. The fact therefore of the birds being hatched, I do not give as coming immediately under my own eye; but the testimony of the person appointed to watch the nest was corroborated by that of another witness.

“To what cause then may we attribute the singularities of the cuckoo? May they not be owing to the following circumstances? The short residence this bird is allowed to make in this country, where it is destined to propagate its species, and the call that nature has on it, during that short residence, to produce a numerous progeny. The cuckoo’s first appearance here is about the middle of April, commonly on the 17th. Its egg is not ready for incubation till some weeks after its arrival, seldom before the middle of May. A fortnight is taken up by the sitting bird in hatching the egg. The young bird generally continues three weeks in the nest before it flies, and the foster-parents feed it more than five weeks after this period; so that, if a cuckoo should be ready with an egg much sooner than the time pointed out, not a single nestling, even one of the earliest, would be fit to provide for itself before its parent would be instinctively directed to seek a new residence, and be thus compelled to abandon its young one; for old cuckoos take their final leave of this country the first week in July.

“Had nature allowed the cuckoo to have staid here as long as some other migrating birds, which produce a sin-

* At this time I was unacquainted with the fact, that the young cuckoo turned out the eggs of the hedge-sparrow; but it is reasonable to conclude, that it had lost the disposition for doing this when these eggs were deposited in the nest.

gle set of young ones, as the swift or nightingale for example, and had allowed her to have reared as large a number as any bird is capable of bringing up at one time, these might not have been sufficient to have answered her purpose; but by sending the cuckoo from one nest to another, she is reduced to the same state as the bird whose nest we daily rob of an egg, in which case the stimulus for incubation is suspended. Of this we have a familiar example in the common domestic fowl. That the cuckoo actually lays a great number of eggs, dissection seems to prove very decisively.

“Among the many peculiarities of the young cuckoo, there is one that shows itself very early. Long before it leaves the nest, it frequently, when irritated, assumes the manner of a bird of prey, looks ferocious, throws itself back, and pecks at any thing presented to it with great vehemence, often at the same time making a chuckling noise like a young hawk. Sometimes, when disturbed in a smaller degree, it makes a kind of hissing noise, accompanied with a heaving motion of the whole body.* The growth of the young cuckoo is uncommonly rapid. The chirp is plaintive, like that of the hedge-sparrow; but the sound is not acquired from the foster-parent, as it is the same whether it be reared by the hedge-sparrow, or any other bird. It never acquires the adult note during its stay in this country.

“The stomachs of young cuckoos contain a great variety of food. On dissecting one that was brought up by wagtails, and fed by them at the time it was shot, though it was nearly of the size and fulness of plumage of the parent-bird, I found in its stomach the following substances. Flies and beetles of various kinds; small snails, with their shells unbroken; grasshoppers; caterpillars; part of a horse-bean; a vegetable substance, resembling bits of tough grass, rolled into a ball; the seeds of a vegetable that resembled those of the goose-grass.

“In the stomach of one fed by hedge-sparrows, the contents were almost entirely vegetable; such as wheat, small vetches, &c. But this was the only instance of the kind I had ever seen, as these birds in general feed the

* Young animals, being deprived of other modes of defence, are probably endued with the power of exciting fear in their common enemies. If you but slightly touch the young hedge-hog, for instance, before it becomes fully armed with its prickly coat, the little animal jumps up with a sudden spring, and imitates very closely the sound of the word, hush! as we pronounce it in a loud whisper. This disposition is apparent in many other animals.

young cuckoo with scarcely any thing but animal food. However, it served to clear up a point which before had somewhat puzzled me; for having found the cuckoo's egg in the nest of a green linnet, which begins very early to feed its young with vegetable food, I was apprehensive, till I saw the fact, that this bird would have been an unfit foster-parent for the young cuckoo. The titlark, I observed, feeds it principally with grasshoppers. But the most singular substance, so often met with in the stomachs of young cuckoos, is a ball of hair curiously wound up. I have found it of various sizes, from that of a pea, to that of a small nutmeg. It seems to be composed chiefly of horse-hairs, and from the resemblance it bears to the inside covering of the nest, I conceive the bird swallows it while a nestling. In the stomachs of old cuckoos I have often seen masses of hair; but these had evidently once formed a part of the hairy caterpillar, which the cuckoo often takes for its food.

"There seems to be no precise time fixed for the departure of young cuckoos. I believe they go off in succession, probably as soon as they are capable of taking care of themselves; for though they stay here till they become nearly equal in size and growth of plumage to the old cuckoo, yet, in this very state, the fostering care of the hedge-sparrow is not withdrawn from them. I have frequently seen the young cuckoo of such a size, that the hedge-sparrow has perched on its back, or half-expanded wing, in order to gain sufficient elevation to put the food into its mouth. At this advanced stage, I believe that young cuckoos procure some food for themselves: like the young rook, for instance, which in parts feeds itself, and is partly fed by the old ones till the approach of the pairing season. If they did not go off in succession, it is probable we should see them in larger numbers by the middle of August; for, as they are to be found in great plenty,* when in a nestling state, they must now appear very numerous, since all of them must have quitted the nest before this time. But this is not the case; for they are not more numerous at any season than the parent birds are in the months of May and June.

"The same instinctive impulse which directs the cuckoo to deposit her eggs in the nest of other birds, directs her young ones to throw out the eggs and young of the owner of the nest. The scheme of nature would be incomplete

* I have known four young cuckoos in the nests of hedge-sparrows, in a small paddock, at the same time.

without it ; for it would be extremely difficult, if not impossible, for the little birds, destined to find succour for the cuckoo, to find it also for their own young ones, after a certain period: nor would there be room for the whole to inhabit the nest.”—*Phil. Trans. Abr.* vol. x.

The following observations of Dr. Darwin, however, should seem to disprove the general doctrine, that the cuckoo never builds a nest, incubates its eggs, or rears its young.

“The cuckoo,” says he, “in some parts of England, as I am well informed by a very observant and ingenious gentleman, hatches and educates her young ; whilst in other parts she builds no nest, but uses that of some lesser bird, generally either of the wagtail or hedge-sparrow, and depositing one egg in it, takes no further care of her progeny.

“M. Herissant thought, that he had discovered the reason why cuckoos do not incubate their own eggs, by having observed that the crop or stomach of the cuckoo was placed behind the sternum, or breast-bone, and he thence fancied, that this would render incubation disagreeable or impracticable. *Hist. de l’Acad. Royal.* 1752. But Mr. White, in his *Natural History of Selbourn*, asserts, that on dissecting a fern-owl, he found the situation of the crop or stomach of that bird to be behind the sternum, like that of the cuckoo, and supposes that many other birds may be organized in the same manner. And, as the fern-fowl incubates and hatches her own eggs, he rationally concludes, that this structure of the bird cannot be the cause of her want of maternal storgé.

“As the Rev. Mr. Strafford was walking in Glossop Dale, in the peak of Derbyshire, he saw a cuckoo rise from its nest. The nest was on the stump of a tree, that had been some time felled, among some chips that were in part turned grey, so as much to resemble the colour of the bird ; in this nest were two young cuckoos ; tying a string about the leg of one of them, he pegged the other end of it to the ground, and very frequently, for many days, beheld the old cuckoo feed these young, as he stood very near them.”

The following extract of a letter from the Rev. Mr. Wilmot, of Morley, near Derby, strengthens the truth of the fact above mentioned, of the cuckoo sometimes making a nest, and hatching her own young.

“In the beginning of July, 1792, I was attending some labourers on my farm, when one of them said to me, ‘There is a bird’s nest upon one of the Coal-slack hills; the bird is now sitting, and it is exactly like a cuckoo. They say that cuckoos never hatch their own eggs, otherwise I should have sworn it was one.’ He took me to the spot, it was an open fallow ground; the bird was upon the nest, I stood and observed her some time, and was perfectly satisfied it was a cuckoo; I then put my hand towards her, and she almost let me touch her before she rose from the nest, which she appeared to quit with great uneasiness, skimming over the ground in the manner that a hen partridge does when disturbed from a new hatched brood, and went only to a thicket about forty or fifty yards from the nest, and continued there as long as I staid to observe her, which was not many minutes. In the nest, which was barely a hole scratched out of the Coal-slack in the manner of a plover’s nest, I observed three eggs, but did not touch them. As I had labourers constantly at work in that field, I went thither every day, and always looked to see if the bird was there, but did not disturb her for seven or eight days, when I was tempted to drive her from the nest, and found two young ones, that appeared to have been hatched some days, but there was no appearance of the third egg. I then mentioned this extraordinary circumstance (for such I thought it) to Mr. and Mrs. Holyoak of Bidford Grange, Warwickshire, and to Miss M. Willes, who were on a visit to my house, and who all went to see it. Very lately I reminded Mr. Holyoak of it, who told me he had a perfect recollection of the whole, and that, considering it a curiosity, he walked to look at it several times, was perfectly satisfied as to its being a cuckoo, and thought her more attentive to her young than any other bird he ever observed, having always found her brooding her young. In about a week after I first saw the young ones, one of them was missing, and I rather suspected my plough-boys having taking it; though it might possibly have been taken by a hawk, sometime when the old one was seeking food. I never found her off her nest but once, and that was the last time I saw the remaining young one, when it was almost full feathered. I then went from home for two or three days, and when I returned, the young one was gone, which I take for granted had flown. Though, during this

time, I frequently saw cuckoos in the thicket I mention, I never observed any one, that I supposed to be the cock-bird, paired with this hen.

“Nor is this a new observation, though it is entirely overlooked by the modern naturalists; for Aristotle, speaking of the cuckoo, asserts, that she sometimes builds her nest among broken rocks, and on high mountains, but adds, in another place, that she generally possessed the nest of another bird; and Niphus says that cuckoos rarely build for themselves, most frequently laying their eggs in the nests of other birds.

“The fair induction appears to be, that the same instinct which prompts the cuckoo to provide herself with a nest, and, wherever it is attainable, through the labour of some other bird, prompts her, where this is not attainable, to build and incubate for herself. We hear of numerous instances of a similar adaptation. Thus the ostrich, in the desert of Arabia, abandons her eggs after she has deposited them in the sand, and intrusts them to the heat of the sun, which is sufficient for their maturity; but in Senegal, where the heat is somewhat less, and not perfectly adequate, she sits upon them through the night, though she relinquishes them in the day; and at the Cape of Good Hope, where there is less heat still, she sits upon them, like other birds, both day and night.”

The BEE CUCKOO, or MOROC.

To this bird, which is a native of Southern Africa, is ascribed the faculty of discovering and pointing out to man, and to the quadruped called the ratel, the nests of wild bees. Being exceedingly fond both of the honey, and of the bee-maggots, and unable of itself often to obtain it, it has resource to other more powerful plunderers, expecting in return for its services to obtain some share of the plunder: and, in general, a portion is purposely left for its reward. It excites attention by the repeated cry of *cheer, cheer, cheer*, and invites the plunderer onwards, by flying slowly, and by degrees, towards the quarter where the swarm of bees has taken up its abode. When it arrives there, it hovers about the nest, and remains silent, until the huntsmen have robbed it, after which it comes forth to receive its share.

The CREEPER.

MR. ST. JOHN, in his "Letters of an American Farmer," relates the following anecdote of what he calls a *wren*, but which is supposed to have been a creeper. One of these birds and a swallow had built their nests contiguous to each other. The wren, which possessed a little box that he had put out on purpose, attempted to drive the swallow from its habitation, and, small as it was, at length succeeded. This exploit was no sooner performed, than the wren removed every material to its own box, with the most admirable dexterity. The peaceable swallow, all the while, sat meekly at a distance, without offering the least opposition. But no sooner was the plunder carried away, than the injured bird went to work with unabated ardour, and in a few days the depredations were repaired.

The WATER OUZEL.

THE following account of an extraordinary habit of this bird was communicated by M. Herbert, to M. de Buffon:—"I lay concealed on the verge of the lake Nantua, in a hut formed of pine branches and snow, where I was waiting till a boat, which was rowing on the lake, should drive some wild ducks to the water's edge. Before me was a small inlet, the bottom of which gently shelved, till the water was two or three feet deep in the middle. A water ouzel stopped here more than an hour, and I had full leisure to view its manœuvres. It entered the water, disappeared, and again emerged on the other side of the inlet, which it thus repeatedly forded. It traversed the whole of the bottom, and in so doing seemed not to have changed its element, and discovered no hesitation or reluctance in the immersion. However, I perceived several times, that as often as it waded deeper than the knee, it displayed its wings, and allowed them to hang to the ground. I remarked too, that, when I could discern it at the bottom of the water, it appeared enveloped with air, which gave it a brilliant surface, like that on some sorts of beetles, which in water are always enclosed in a bubble of air. Its view, in dropping its wings on entering the water, might be to confine this air; it was certainly never

without some, and it seemed to quiver. These singular habits were unknown to all the sportsmen with whom I talked on the subject; and, perhaps, had it not been for the accident of the snow hut in which I was concealed, I should have for ever remained ignorant of them; but the above facts I can aver, as the bird came quite to my feet, and, that I might observe it, I refrained from killing it."

The BENGAL GROSBEEK.

"THIS bird," says Sir William Jones, in the Asiatic Researches, "is exceedingly common in Hisdoostan. He is astonishingly sensible, faithful, and docile; never voluntarily deserting the place where his young ones are hatched, but not averse, like most other birds, to the society of mankind, and easily taught to perch on the hand of his master. In a state of nature, he generally builds his nest on the highest trees that he can find, especially on the Palmyra, or the Indian fig-tree, and he prefers that which happens to overhang a well or a rivulet; he makes his nest of grass, which he weaves like cloth, and shapes like a large bottle, suspending it firmly on the branches, but so as to rock with the wind, and placing it with its entrance downwards, to secure it from birds of prey. The nest usually consists of two or three chambers; and it is popularly believed that he lights them with fire-flies, which he is said to catch alive at night, and confine with moist clay, or with cow-dung. That such flies are often found in his nest, where pieces of cow-dung are also stuck, is indubitable; but as their light could be of little use to him, it seems probable that he only feeds on them."

The SOCIABLE GROSBEEK.

THESE birds live together in large societies, sometimes as many as eight hundred or a thousand in one tree. All the nests are built under one common roof, like that of a thatched house. Mr. Paterson has described one which he himself examined. "The industry of these birds," he observes, "seems almost equal to that of the bee. Throughout the day they appear to be busily employed in carrying a fine species of grass, which is the principal material they employ for the purpose of erecting this extraordinary

work, as well as for additions and repairs. Though my short stay in the country was not sufficient to satisfy me, by ocular proof, that they added to their nest as they annually increased in numbers; still, from the many trees which I have seen borne down by the weight, and others which I have observed with the bows completely covered over, it would appear that this is really the case. When the tree, which is the support of this aerial city, is obliged to give way to the increase of weight, it is obvious that the birds are no longer protected, and are under the necessity of rebuilding in other trees. One of these deserted nests I had the curiosity to break down, for the purpose of informing myself of the internal structure of it, and found it equally ingenious with that of the external. There were many entrances, each of which formed a regular street, with nests on both sides about two inches distant from each other. The grass with which the birds build is called the Boshman's grass, and I believe the seed of it to be their principal food; though, on examining their nests, I found the wings and legs of different insects. From every appearance, the nest which I dissected had been inhabited for many years; and some parts of it were much more complete than others. This, therefore, I conceive to amount nearly to a proof, that the animals added to it at different times, as they found necessary, from the increase of their family, or rather of the nation or community."

The WHIDAH BIRD.

THESE birds, which are somewhat larger than a sparrow, are found in great numbers in Angola, on the western coast of Africa, and in the country round Mosambique. The great characteristic in this bird is the bearing an entirely different plumage in winter to that which they have in summer. In its summer plumage the neck has, at the back, a broad semi-collar of orange yellow; the breast is reddish: the under parts of the body and the thighs are white; the neck, back, wings, and tail are black. In the tail there are four feathers much longer than any of the others; two of which, about thirteen inches long, are bent like those of a cock; the other two; which are shorter and broader, terminate each in a slender thread. In the winter plumage the four long tail feathers

fall off; the head is varied with black and white; the breast is black; and the upper wing-coverts are dirty yellow: the feathers of the tail and wings are dark brown, and those of the under part of the body white. The whidah bird subsists on various kinds of seeds.

The HUMMING BIRD.

THE following account of the humming bird is given by Mr. Waterton, in his Wanderings in South America:—“Though least in size, the glittering mantle of the humming-bird entitles it to the first place in the list of birds of the New World. It may be truly called ‘the Bird of Paradise;’ and had it existed in the Old World, it would have claimed the title, instead of the bird which has now the honour to bear it:—see it darting through the air almost as quick as thought!—now it is within a yard of your face!—in an instant gone—now it flutters from flower to flower, to sip the silver dew—it is now a ruby—now a topaz—now an emerald—now all burnished gold! It would be arrogant to pretend to describe this winged gem of nature, after Buffon’s elegant description of it.

“Cayenne and Demerara produce the same humming birds. Perhaps you would wish to know something of their haunts. Chiefly in the months of July and August, the tree called *bois immortel*, very common in Demerara, bears abundance of red blossom, which stays on the trees for some weeks; then it is that most of the different species of humming birds are very plentiful. The wild red sage is also their favourite shrub, and they buz like bees round the blossom of the wallaba tree. Indeed, there is scarce a flower in the interior, or on the sea coast, but what receives frequent visits from one or other of the species.

“On entering the forests, on the rising land in the interior, the blue and green, the smallest brown, no bigger than the humble bee, with two long feathers in the tail, and the little forked-tail, purple-throated humming birds, glitter before you in ever changing attitudes. One species alone never shows his beauty to the sun; and, were it not for his lovely shining colours, you might almost be tempted to class him with the goat-suckers, on account of his habits. He is the largest of the humming birds, and is all red and changing gold green, except the head,

which is black. He has two long feathers in the tail, which cross each other, and these have gained him the name of Karabimiti, or Ara humming-bird, from the Indians. You never find him on the sea-coast, or where the river is salt, or in the heart of the forest, unless fresh water be there. He keeps close by the side of woody fresh-water rivers, and dark and lonely creeks. He leaves his retreat before sunrise to feed on the insects over the water; he returns to it as soon as the sun's rays cause a glare of light, is sedentary all day long, and comes out again for a short time after sun-set. He builds his nest on a twig over the water, in the unfrequented creeks; it looks like tanned cow leather.

"As you advance towards the mountains of Demerara, other species of humming birds present themselves before you. It seems to be an erroneous opinion, that the humming bird lives entirely on honey-dew. Almost every flower of the tropical climates contains insects of one kind or other; now, the humming-bird is most busy about the flowers an hour or two after sun-rise, and after a shower of rain, and it is just at this time that the insects come out to the edge of the flower, in order that the sun's rays may dry the nocturnal dew and rain which they have received. On opening the stomach of the humming bird, dead insects are almost always found there."

The COTINGA.

"NEXT to the humming birds," says Mr. Waterton, "the cotingas display the gayest plumage. They are of the order of passer, and you number five species betwixt the sea-coast and the rock Saba. Perhaps the scarlet cotinga is the richest of the five, and is one of those birds which are found in the deepest recesses of the forest. His crown is flaming red; to this abruptly succeeds a dark shining brown, reaching half way down the back: the remainder of the back, the rump, and tail, the extremity of which is edged with black, are a lively red; the belly is a somewhat lighter red; the breast reddish black; the wings brown. He has no song, is solitary, and utters a monotonous whistle, which sounds like 'quet.' He is fond of the seeds of the hitia tree, and those of the siloabali and bastard siloabali trees, which ripen in December, and continue on the trees for above two months. He is found

throughout the year in Demerara ; still nothing is known of his incubation. The Indians all agree in telling you that they have never seen his nest.

“The purple-breasted cotinga has the throat and breast of a deep purple, the wings and tail black, and all the rest of the body a most lovely shining blue.

“The purple-throated cotinga has black wings and tail, and every other part a light and glossy blue, save the throat, which is purple.

“The pompadour cotinga is entirely purple, except his wings, which are white, their four first feathers tipped with brown. The great coverts of the wings are stiff, narrow, and pointed, being shaped quite different from those of any other bird. When you are betwixt this bird and the sun, in his flight, he appears uncommonly brilliant. He makes a hoarse noise, which sounds like ‘wallababa.’ Hence his name among the Indians.

“None of these three cotingas have a song. They feed on the hitia, siloabali, and bastard siloabali seeds, the wild guava, the fig, and other fruit trees of the forest. They are easily shot in these trees during the months of December, January, and part of February. The greater part of them disappear after this, and probably retire far away to breed. Their nests have never been found in Demerara.

“The fifth species is the celebrated companero of the Spaniards, called dara by the Indians, and bell-bird by the English. He is about the size of the jay. His plumage is as white as snow. On his forehead rises a spiral tube, nearly three inches long. It is jet black, dotted all over with small white feathers. It has a communication with the palate, and when filled with air, looks like a spine ; when empty it becomes pendulous. His note is loud and clear, like the sound of a bell, and may be heard at the distance of three miles. In the midst of these extensive wilds, generally on the tried top of an aged mora, almost out of gun reach, you will see the campanero. No sound or song from any of the winged inhabitants of the forest, not even the clearly pronounced ‘Whip-poor-Will’ from the goatsucker, cause such astonishment, as the toll of the campanero.

“With many of the feathered race he pays the common tribute of a morning and evening song ; and even when the meridian sun has shut in silence the mouths of almost the whole of animated nature, the campanero still

cheers the forest. You hear his toll, and then a pause for a minute, then another toll, and then a pause again, and then a toll, and again a pause. Then he is silent for six or eight minutes, and then another toll, and so on. Acteon would stop in mid chase, Maria would defer her evening song, and Orpheus himself would drop his lute to listen to him; so sweet, so novel, and romantic is the toll of the pretty snow-white campanero. He is never seen to feed with the other cotingas, nor is it known in what part of Guiana he makes his nest."

The SPARROW.

"When I was a boy," says Mr. Smellie, "I carried off a nest of young sparrows, about a mile from my place of residence. After the nest was completely moved, and while I was marching home with them in triumph, I perceived, with some degree of astonishment, both the parents following me at some distance, and observing my motions in perfect silence. A thought then struck me, that they might follow me home, and feed the young according to their usual manner. When just entering the door I held up the nest, and made the young ones utter the cry which is expressive of the desire of food. I immediately put the nest and the young in the corner of a wire cage, and placed it on the outside of a window. I chose a situation in the room where I could perceive all that should happen, without being myself seen. The young birds soon cried for food. In a short time both parents, having their bills filled with small caterpillars, came to the cage; and after chatting a little, as we would do with a friend through the lattice of a prison, gave a small worm to each. This parental intercourse continued regularly for some time, till the young ones were completely fledged, and had acquired a considerable degree of strength. I then took one of the strongest of them, and placed him on the outside of the cage, in order to observe the conduct of the parents after one of their offspring was emancipated. In a few minutes both parents arrived, loaded, as usual, with food. They no sooner perceived that one of their children had escaped from prison than they fluttered about, and made a thousand noisy demonstrations of joy, both with their wings and their voices. These tumultuous expressions of unexpected happiness at last gave place to a more calm and

soothing conversation. By their voices and their movements, it was evident that they earnestly entreated him to follow them, and to fly from his present dangerous state. He seemed to be impatient to obey their mandates ; but, by his gestures, and the feeble sounds he uttered, he plainly expressed that he was afraid to try an exertion he had never before attempted. They, however, incessantly repeated their solicitations ; by flying alternately from the cage to a neighbouring chimney top, they endeavoured to show him how easily the journey was to be accomplished. He at last committed himself to the air, and alighted in safety. On his arrival, another scene of clamorous and active joy was exhibited. Next day I repeated the same experiment, by exposing another of the young ones on the top of the cage. I observed the same conduct with the remainder of the brood, which consisted of four. I need hardly add, that not one either of the parents or children ever afterwards re-visited the execrated cage."

Sparrows are universally execrated by the farmer, but unjustly, for it is very probable that they are more serviceable than hurtful. Mr. Bradley, in his general Treatise on Husbandry and Gardening, shows, from actual observation, that a pair of sparrows, during the time they have their young ones to feed, destroy, on an average, every week about 3360 caterpillars. They also feed on butterflies and other winged insects.

The note of the sparrow in its wild state is nothing more than a chirp ; but, when educated in a cage, it has been taught to warble the notes of other birds.

The GOLDFINCH.

SOME years ago, the Sieur Roman exhibited in this country the wonderful performances of his birds. These were goldfinches, linnets, and canary birds. One appeared dead, and was held up by the tail or claw, without exhibiting any signs of life. A second stood on its head, with its claws in the air. A third imitated a Dutch milkmaid going to market, with pails on its shoulders. A fourth mimicked a Venetian girl looking out at a window. A fifth appeared as a soldier, and mounted guard as a sentinel. The sixth was a cannonier, with a cap on his head, a firelock on his shoulder, and a match in his claw ; and

discharged a small cannon ; the same bird also acted as if it had been wounded ; it was wheeled in a little barrow, to convey it, as it were, to the hospital ; after which it flew away before the company. The seventh turned a kind of windmill ; and the last bird stood in the midst of some fire-works, which were discharged all round it ; and this without its exhibiting the least sign of fear.

The CANARY-BIRD.

IN May, 1820, a Frenchman, whose name was Dujon, exhibited in London twenty-four canary-birds. Some of them balanced themselves on their heads and shoulders. One, taking a slender stick in its claws, passed its head between its legs, and suffered itself to be turned round, as if in the act of being roasted. Another balanced itself, and swung on a slack rope. A third was dressed in military uniform, having a cap on its head, a sword and a pouch, and a firelock in its claws ; at the word of command it freed itself from its dress, and flew away to its cage. A fourth suffered itself to be shot at, and pretended to fall down dead, when it was put into a little wheel-barrow, and wheeled away by one of its comrades. Lastly, several of them were placed upon a little firework, and remained there quietly while it was discharged.

The NIGHTINGALE.

THIS bird is limited to the old continent, and ranges over Europe, from Italy and Spain to Sweden ; occurring likewise in Siberia, Kamtschatka, China, and Japan ; but it betrays local preferences which are not easily explained, being met with, for example, in higher latitudes and colder countries than Scotland, whilst it is, nevertheless, a stranger to the latter, to a large portion of the north of England, and to Ireland.

In Europe, the nightingale is migratory, arriving in spring and departing in autumn, sooner or later, according to the temperature of the latitude. They are said not to travel in flocks, but singly ; yet as their numbers increase on the southern shores of Europe, previous to their departure, it is probable that, notwithstanding their natural shyness, they may unite for the common defence. It was long generally supposed that they repaired to Asia for

their winter residence; but Sonnini has distinctly traced them to Africa, particularly to Egypt. This learned traveller recognized them, in winter, in the fresh and smiling plains of the Delta, and witnessed their passage to the islands of the Archipelago. He likewise remarks, that they are common in winter, in some parts of Asia Minor, as in Natolia, where they pass the season in the forests and groves, but undistinguished by their song, which in their free condition is appropriate to the period of breeding.

On their first arrival in the provinces of Europe, these birds affect the bottoms of hedges and enclosures, which are calculated to afford them at once concealment, protection from cold, and insect food; but as soon as the forests begin to assume their verdure, they retire into the thickest recesses, and take up their residence under the covert of a hill, or in the neighbourhood of a brook, or of an echo, with the reverberation of which they appear to be delighted. The male selects two or three favourite trees, from which he loves to pour forth his lays in the most perfect style, particularly from that which is nearest to his nest. When once coupled, he allows none of his fellows to intrude on his chosen domain. The extent of the latter is regulated by the quantity of subsistence requisite for the family; for it has been observed, that in those situations in which food abounds, the intervals between the nests are much more limited. Fierce and deadly conflicts sometimes ensue for the possession of the females; and it has been repeatedly asserted that the males greatly exceed the other sex in number—a position from which Colonel Montague is strongly inclined to dissent; but as the males arrive about ten days sooner than the females, and consequently none but males are caught at first, he supposes that this circumstance suggested the notion of the disparity. Each couple work at the construction of their respective nest, which, after all, is so loosely put together, as scarcely to bear transporting from one place to another. The external materials employed are quantities of coarse grass, and dried leaves of the oak; and the lining consists of hair, fibrous roots, down, or other soft substances. It is usually placed near the ground, in bushes, at the foot of a hedge, or of a row of horn-beams, or on the undermost branches of some tufted shrub. Hence the eggs, the young, and sometimes the mother, are known to fall a sacrifice to dogs, foxes, polecats, weasels, &c. The hatch

generally consists of from four to six eggs, of an olivaceous green. In this country there is seldom more than one brood in the year, and in France seldom more than two, unless some accident befalls the first. The female, though a close and ardent sitter, is said to be sometimes relieved by the male. From the moment that the young are hatched, both parents attend them with much assiduity; but it is a mistake to suppose that, like the canaries, they disgorge for them, in the form of pellets, the food which they had previously swallowed; for, having no crop, they merely stuff their bill to the œsophagus with young worms, smooth caterpillars, and the larvæ of ants, and of other insects, which they share, in equal portions, among the brood; or, if abundance of food be near at hand, they are contented to fetch it at the end of their bill, as they do in aviaries. The young are fledged in less than a fortnight, and quit the nest before they are capable of flight, hopping after their parents from twig to twig; but from the moment they can use their wings, the male alone takes charge of them, and the female prepares the nest for a second hatch. As soon as the young come forth from the shell, the male ceases his song, which he seldom resumes during the second breeding; but if by accident his female is taken from him, or killed before the accomplishment of the first hatch, he is again musical, and will continue to sing very late in the summer, or till he finds another mate. Both parents, however, have a clamorous note of anxiety and alarm, which they frequently repeat, especially if danger threatens the nest, and which serves as a signal to the young to remain silent and motionless. About the end of August, or even sooner, if their stock of provisions begins to fail, both old and young resort to the hedges, orchards, newly turned-up-fields, &c., where they find more abundant fare, and add to their ordinary diet elderberries and other soft fruits, on which they fatten. In some countries they are snared, and reckoned as dainty as ortolans.

The nightingale exceeds all birds in the softness and mellowness, as well as in the duration of its warble. Though heard to advantage in the stillness of a fine evening, it also sings in the day-time, but its notes are then blended with those of the other choristers of the grove, and consequently not so readily distinguished. Mr. John Hunter discovered that the larynx are stronger in this than in any other species of birds, and that they are

strongest in the male, which is the principal songster. The Hon. Daines Barrington kept a very fine nightingale for three years, and bestowed particular attention on his musical faculties and exertions; he ascertained that the sound of its song filled the circle of an English mile in diameter; which is equal to the power of the human voice. When it sang round, in its entire compass, he remarked sixteen different beginnings and closes, at the same time that the intermediate notes were commonly varied in their succession with so much judgment, as to produce the most pleasing variety. It would sometimes continue its warble for twenty seconds without a pause; but whenever respiration became necessary, it was taken as skilfully as by an opera singer. Kircher and Barrington both attempted to note the nightingale's song in technical form; but although the notes were played by an excellent performer on the flute, they bore no resemblance to the native warble of the bird, owing, as Mr. Barrington conjectured, to the impossibility of marking the musical intervals; for the measures are so varied, the transitions so insensibly blended, and the succession of notes so wild and irregular, as to soar beyond the fetters of method. These birds, however, differ very much in regard to the quality of their song; for in some it is so indifferent, that they are not reckoned worth keeping, and it is even pretended that their warble is not the same in every district. The bird-fanciers in England, for example, prefer the nightingales of Surrey to those of Middlesex, as they give a preference to the chaffinches of Essex, and the goldfinches of Kent. At times, even a female has been heard to sing, though less powerfully than the male, a circumstance which may rescue Virgil and Milton from the criticism of having improperly attributed to her the prerogative of the other sex.

The male nightingale is naturally endued with a decided musical propensity. Bartolomeo Ricci, in a letter to Giambatista Pigna, when describing the readiness with which Silvio Autoniano acted the part of an *improvisatore*, and accompanied his verses with the lyre, relates that a nightingale, attracted by his music, took its station at no great distance, answered with the notes of the lyre, and seemed to contend with the poet in his song. Silvio no sooner perceived this, than he changed his theme, and celebrated the praises of the nightingale.

Sir William Ouseley, who resided for some time at

Shiraz, in Persia, in 1811, says that he passed many hours in listening to the melody of the nightingales that abounded in the gardens in the vicinity of this city; and he was informed that they often expired while contending with the musicians in the loudness or variety of their notes.

"An intelligent Persian," says the late Sir William Jones, in his Dissertation on the Musical Modes of the Hindoos, "declared that he had more than once been present when a celebrated lutanist, surnamed Bulbul (the nightingale), was playing to a large company in a grove near Schiraz, where he distinctly saw the nightingales trying to vie with the musician; sometimes warbling on the trees, sometimes fluttering from branch to branch, as if they wished to approach the instrument, and at length dropping on the ground in a kind of ecstasy, from which they were soon raised, he assured me, by a change in the mode." When M. Geradin happened to saunter in the *Jardin des Plantes* at Paris, in a fine evening of spring, his ear was regaled with the melodious accents of two nightingales. He instantly returned the compliment by some passages of tender airs, on the German flute; when his feathered musicians approached him, first in silence, but after listening for a while, they sung in unison to his instrument, and soon surpassed its powers. On raising his key first one-third, and subsequently a whole octave, they shrunk not from the challenge, and acquitted themselves in such a style as, by M. Geradin's own confession, to merit the palm of victory.

In confirmation of the Persian report given by Sir William Ouseley, it may be mentioned that, according to Pliny (Nat. Hist. lib. xc. cap. 29), in vocal trials among nightingales, the vanquished bird terminated its song only with its life; and Strada, in a beautiful Latin poem, translated by Crashaw (lib. ii. prolus. vi.), supposes the spirit of emulation so powerful in the nightingale, that, having strained her little throat, vainly endeavouring to excel the musician, she breathes out her life in one last effort, and drops upon the instrument which had contributed to her defeat. The poem concludes thus:—

"At length (after so long, so loud a strife
Of all the strings, still breathing the best life
Of blest variety, attending on
His fingers' fairest revolution,
In many a sweet rise, many as sweet a fall)
A full-mouthed diapason swallows all.

" This done, he lists what she would say to this,
 And she, although her breath's late exercise
 Had dealt too roughly with her tender throat,
 Yet summons all her sweet powers for a note ;
 Alas ! in vain, for whilst (sweet soul) she tries
 To measure all those wild diversities
 Of chatt'ring strings, by the small size of one
 Poor simple voice, raised in a natural tone,
 She fails, and failing grieves, and grieving dies ;
 She dies, and leaves her life the victor's prize,
 Falling upon his lute. O fit to have
 (That liv'd so sweetly) dead, so sweet a grave ! "

That nightingales have often been entranced through the effect of instrumental music, appears from Bourdelot's *Histoire de la Musique*. " Nothing is more common," he observes, " than to see the nightingales, at particular seasons, assemble in a wood, when they hear the sound of certain instruments, or of a fine voice, which they endeavour to answer by their warblings, with such violent efforts, that I have frequently beheld some of them fall, as if entranced, at the feet of a person who possessed what is called a 'nightingale throat,' to express the flexibility of a fine voice." Bourdelot adds that, " often, both nightingales and linnets are seen perched even on the handles of lutes, guitars, and other instruments, with which it was usual for persons, about a century since, to amuse themselves at the Tuilleries, in Paris, in the month of May."

" The nightingale may be domesticated, though notwithstanding considerable pains and difficulty. For this purpose it must be treated with tenderness, and with favourite food, as the nymphæ of ants, meal-worms, and certain pastes, prepared by dealers ; also sheep's heart, mutton or beef, raw, or parboiled, with egg chopped very fine. In consequence of careful management, its warble is rendered much superior to that of the wild nightingale, and will be uttered all the year round, except during moulting. In many parts of Russia, and particularly at Moscow, the art of taming and rearing nightingales is practised on an extensive scale ; and according to the observation of that intelligent and entertaining traveller, Dr. Clark, these birds are heard throughout the night, " making the streets of the city resound the melodies of the forest." They may be instructed to sing, in alternation, with a chorus, and to repeat their couplet at the proper time. They may also be taught to enunciate words, though not, we may presume, to conduct trains of discourse in the marvellous

manner recorded by Pliny and Gessner. Their attachments, though slowly acquired, are strong and permanent; they distinguish the step of their master, and welcome his approach with the music of joy; and some of them have pined to death on the loss of their benefactors. One that was presented to a gentleman, no longer seeing the lady who used to feed him, became sullen, refused to eat, and was soon reduced to that state of weakness, that he could no longer support himself on his perch; but, on being restored to his former mistress, he quickly revived, ate, drank, returned to his perch, and was well in twenty-four hours. Buffon makes particular mention of a nightingale, which, by feeding on a prepared paste, lived to the age of seventeen years; and, though hoary, yet happy and gay, warbling as in early youth, and caressing to the last the hand which fed it.

The London bird-catchers take nightingales in net-traps (somewhat larger than cabbage nets), the bottoms of which are surrounded with an iron ring. These are baited with meal-worms from bakers' shops; and ten or a dozen birds have sometimes been caught in a day.

The RED-BREAST.

THE general familiarity of this bird has obtained for it a peculiar denomination in severe countries. The inhabitants of Bornholm call it *Tommi Liden*; the Norwegians, *Peter Ronsmad*; the Germans, *Thomas Gierdet*; and we, the familiar appellation of *Robin Red-breast*.

The following observations, extracted from the Edinburgh Journal of Science, are peculiarly illustrative of its manners:—"Of the small song-birds, the red-breast seems most strongly attached to man and his dwellings; and there are associations connected with its history, which prevent the robbing of its nest, even by those whose feelings of humanity for the other families of the feathered race are by no means similar. In this country much of that feeling which protects the red-breast's nest is, undoubtedly owing to the pathetic tale of the '*Babes of the Wood*;' but, on the Continent, where it is not regarded with the same associations, the red-breast is taken in numbers, at the close of autumn, for the use of the table. On this account also it is, perhaps, that the red-breast is so seldom seen in the confinement of a cage. The follow-

ing notice of one, however, which was taken by a gentleman in Orkney, and kept for nine years as a song-bird, may be interesting, as detailing the kind of food which supported him during his long captivity, and the change of plumage which took place towards the close of his life :—

“ Dear Sir,—At your request, I state to you some particulars respecting a robin red-breast which I had kept in a cage for nine years. As far as my information extends, this and another in Wales are the only instances in Britain of preserving that melodious bird in a domesticated state. During a fall of snow, he got into my barn, and was caught by a net, without receiving any injury. The difficulty was how to tame and feed him. I put crumbs of soft bread and potatoes into the cage; and, in order to prevent the violent struggles which he made for freedom from killing him, I removed him to a solitary room. In the course of two days he became quite tame. I perceived the food which I had given him he did not relish. I tried the common earth-worm, cut into small pieces, which he devoured greedily. He recovered his health and fine appearance, and, in a few days, began to delight us with his sweet-varied song. As the season approached for obtaining the common flesh-fly and butterflies, they were procured for him; and I have seen him use above a hundred of the flesh-flies daily. After I had him seven years, the colour of his feathers had considerably changed; his wings, back, and tail turned white, but his breast retained its red colour; and thus he continued till the ninth year, when he died. The north of Scotland does not furnish a more delightful bird for a cage than a robin. Could he be procured young, and treated as I have stated, there can be doubt of preserving him. It is extremely difficult to obtain a young one. The female is scarcely known. I have never met with any book describing the female robin. I never saw but two of them; and I shall state the grounds of my opinion that they were female robins :—The male robin is a daring warlike bird; he does not associate even with the male of his own species, nor with any bird whatever but the female of his own kind. Of this I am certain; and I remarked his familiarity and attention to the only two females I have seen. I shall describe to you the female :—She is precisely of the same form with the male—of a dusky colour—has not

the red breast—chirps as the male—and bows the head at every chirp, but is devoid of song.’

“Our correspondent is wrong in supposing that the domestication of red-breasts is of rare occurrence. The feeling which prevents their being taken and educated as song-birds has, we have little doubt, taken its rise from the association we have alluded to, and is by no means to be attributed to their inability to support the confinement of a cage. The Hon. Daines Barrington (*Phil. Trans.* vol. lxiii.) mentions his having trained young red-breasts, among other birds, under a nightingale, for the purpose of ascertaining whether the notes of birds were instinctive; or how much arose from imitation. In one case, three parts in four were the song of the nightingale; in another, educated under a woodlark-linnet for a month, and afterwards removed near a skylark-linnet, the robin learnt the notes of this last. Willoughby says,* red-breasts may be taken ‘at ten days old; if you let them lie too long, they will be sullen.’ And Vieillot† remarks, that, even when taken full grown, at the beginning of winter, the red-breast supports captivity, and sings soon after being deprived of liberty.

“Though insects, larvæ, and worms, be the chief food of the red-breast, yet, at the close of the season, it feeds on berries and seeds; and when the approach of winter brings it to the dwellings of men, crumbs of bread, &c. are eaten readily. One severe winter, some years ago, we picked up a poor robin battered down by sleet, and almost exhausted, and fed it several weeks in a green-house on crumbs of bread; and for several years a pensioner has come annually to our window, to feed upon the crumbs which are daily laid out by the children for his use. Whether this be always the same individual we are not aware; but his acquaintance with the locality, and his confidence in letting it be known when he is present, render this probable. His pugnacious disposition and his boldness enable him to put to flight the crowds of sparrows, which the crumbs attract to the same place.

“Our correspondent’s remarks upon the female red-breast we are afraid are not correct. The difference between the sexes is so little striking, as not likely to be noticed by an unpractised eye. The cock may be known

* Willoughby, p. 219. † Vieillot, in *Nouv. Dict. d’Hist. Nat.* vol. xi.

by his breast being of a deeper red, and the red going further upon the head, says Willoughby ; and Vieillot remarks that the female differs very little from the male, the orange-red in the former only inclining a little more to the yellow, and descending less on the breast. What our correspondent has taken for the female red-breast, is more likely to have been a young bird of the year, under the guidance of its parent—for the young do not take their proper colour till after moulting. Before this their plumage is generally brown, spotted with dull red. The red-breast, it may be remarked, is the first bird heard in the morning, and the last that is seen after the setting of the sun."

The WILLOW-WREN.

A WILLOW-WREN had built in the bank of one of the fields of Mr. White, near Selborne. He and a friend observed her as she sat on her nest, but without disturbing her, though she eyed them with some degree of jealousy. Some days afterwards, as they passed the same way, they were desirous of remarking how the brood went on ; but no nest could be found, till Mr. White happened to take up a large bundle of long green moss, which had been thrown as it were carelessly over the nest, in order to mislead the eye of any impertinent intruder.

The TAILOR-BIRD.

THE sutoria, or tailor-bird, is a native of the East Indies. Mr. Pennant, speaking of this little bird, says, " Had Providence left the feathered tribe unendued with any particular instinct, the birds of the torrid zone would have built their nests in the same unguarded manner as those of Europe ; but there the lesser species, having a certain prescience of the dangers that surround them, and of their own weakness, suspend their nests at the extreme branches of the trees ; conscious of inhabiting a clime replete with enemies to them and their young—snakes that twine up the bodies of the trees, and apes that are perpetually in search of prey ; but, Heaven-instructed, they elude the gliding of the one, and the activity of the other. Some form their pensile nest in the shape of a purse, deep

and open at top ; others with a hole in the side ; and others, still more cautious, with an entrance at the very bottom, forming their lodge near the summit. But the little species here described seem to have greater diffidence than any of the others. It will not trust its nest even to the extremity of the slender twig, but makes one more advance to safety, by affixing it to the leaf itself. It picks up a dead leaf, and, surprising to relate, sews it to the side of a living one, its slender bill being its needle, and its thread, some fine fibres ; the lining—feathers, gossamer, and down. The weight of the bird is only three sixteenths of an ounce. Its colour is a light yellow.”

The TITMOUSE, or TOM-TIT.

It is difficult to comprehend by what means many of our small and insectivorous birds are preserved during some of our hard and long winters, unless they have powers of abstinence greater than we are sensible of. The little blue tom-tits more frequently perish in severe winters than any bird with which we are acquainted ; they lay many eggs, and numbers are thus produced to supply the annual waste ; they will pick a bone in our yards with great adroitness, or scraps of meat at the butcher's stall. The chief sustenance of the tom-tit is insects, which he will hunt out with indefatigable perseverance, and draw from their asylums by many stratagems : he peeps into the nail-holes of our walls for the spider and the chrysalis of the cabbage butterfly ; yet a supply of such food is very precarious, and always, in the winter season, of difficult attainment ; consequently a great mortality ensues. This bird roosts under the eaves and in the little holes of our hay-stacks, where we often find him dead, killed by hunger or cold, or both conjointly :

————— “ In chinks and holes
Ten thousand seek an unmolested end,
As instinct prompts, self-buried ere they die.”

And this poor little animal, besides, has the misfortune, with many others equally inoffensive, to be included in the catalogue of injurious birds, rewards being given for its destruction. We have seen, in the churchwardens' charges for a very small parish, “ Money paid for seventeen dozen of tom-tits' heads in one year.”

THE SWALLOW TRIBE.

THERE are few subjects in natural history, which have been the subject of so much dispute as the vernal retreat of the swallow. As individuals have been sometimes found in a torpid state, in old walls, and rocks, and even at the bottom of rivers in a state of torpidity, it has given rise to the opinion that such places are their general retreats during the winter season. This was the opinion of Pliny (lib. x. c. 24.); and appears to have been in some measure that of Linnæus.

Sufficient arguments, however, have been adduced, to prove that these instances, even supposing them all to be authentic (which seems to be rather doubtful), were merely accidental. Even the mode of their departure is almost a sufficient proof of their migration. For they do not disappear one by one, and by degrees, as would be the case did they retreat only to such arbitrary places as those mentioned, when the severity of the weather forced them; but they collect together in large flocks, for a day or two before their departure, and all disappear together, even before they can be supposed to be driven away by cold or hunger, leaving seldom a trace behind them. The accounts too of a number of highly credible travellers, who have seen them on their journey (which was generally to Senegal, and various parts of Africa), are an additional and decisive proof. The substance of these accounts is given by the writers of "*Le Nouveau Dictionnaire d'Histoire Naturelle*," published at Paris in 1803, in the following words:—" *Celles (les hirondelles) cheminée vont jusqu'au Sénégal, ou elles arrivent vers le 9 Octobre, et en repartent au printems. Il n'est pas rare dans migrations de'en voir en mer, qui lorsqu'elles sont trop fatiguées se reposent sur les vergues des navires; et parmi elles, on a reconnu celles qui habitent parmi nous.*" In addition to these proofs, the authority of the greatest number of naturalists in all ages may be adduced. It is even classed in the scripture amongst migrating birds. "Yea, the stork in the heavens," saith Jeremiah, "knoweth her appointed time; and the turtle, and the crane, and the swallow, observe the time of their coming."

Birds of passage are all peculiarly accommodated, by the structure of their parts, for long flights; and it is re-

marked that, in their migrations, they observe a wonderful order and polity: they fly in troops, and steer their course, without the aid of a compass, to vast unknown regions. It is observed by Shaw, in his travels, that storks, about a fortnight before they pass from one country to another, constantly resort together from all the circumjacent parts, to a certain plain, and there forming themselves daily into what, in the popular phrase, is called a *dou wanne*, determine the exact time of their departure, and the places of their future abode.

Swallows have often been observed, in innumerable flocks, on churches, rocks, and trees, previously to their departure from Great Britain; and their return, in apparently equal numbers, has been witnessed in a variety of instances. In Sweden, the starling, finding, after the middle of summer, that worms are less plentiful, goes annually into Scania, Germany, and Denmark. The female chaffinches, every winter, about Michaelmas, go in flocks to Holland; but as the males stay in Sweden, the females come back in the spring, except such as do not choose to breed any longer. In the same manner, the female Carolina yellow-hammer, in the month of September, while the rice on which she feeds is laid up in the granaries, goes towards the south, and returns in spring to seek her mate. The aquatic birds of the north are forced by necessity to fly toward the south every autumn before the water is frozen. Thus the lakes of Poland and Lithuania are filled with swans and geese in the autumnal season, at which time they go in great flocks, along many rivers, as far as the Euxine Sea. In the beginning of spring, however, as soon as the heat of the sun molests them, they return back, and again frequent the borders of the springs and lakes, where the females deposit their eggs; for there, and especially in Lapland, a vast abundance of gnats—insects which live in the water before they get their wings, afford them an excellent nourishment.

When great abundance of winter migratory birds, and particularly fieldfares, arrive early, they usually forebode a hard winter. The same prognostic of a severe winter is to be inferred from the early or numerous migration of wild geese, wild ducks, and other winter fowls, or the appearance of sea-gulls, in the inland marshes.

The harsh screaming of aquatic fowls, as they pass over us, may often be heard at night, when they themselves are unseen. Cranes, storks, geese, and ducks, all

fly by night as well as by day ; and the stork is the only one of them who is not clamorous : he takes to wing in silence, and pierces the aërial regions unheard. The cranes, on the contrary, are the most sonorous. We have no doubt that we once saw a flight of them in this country, in November, 1799, at Hackney, in Middlesex ; they flew at an immense height. The flight of cranes has been always notable, and Homer has a beautiful passage in the third Iliad, in which he compares their bold flight to the march of the Trojan phalanx. In the summer they spread themselves over the north of Europe and Asia, as far as the Arctic Circle, and in the winter are met with in the warmer regions of India, Syria, Egypt, &c., and at the Cape of Good Hope. The course of their flight is discovered by the loud noise they make ; for they soar to such a height as to be hardly visible to the naked eye. Like the wild geese, they form themselves into different figures, describing a wedge, a triangle, or a circle. It is said that they formerly visited the fens and marshes of this island in large flocks, but they have now entirely forsaken it.

Before the storks take their departure from their northern summer residence, they assemble in large flocks, and seem to confer on the plan of their projected route. Though they are very silent at other times, on this occasion they make a singular clattering noise with their bills, and all seems bustle and consultation. It is said that the first north wind is the signal for their departure, when the whole body become silent, and move at once, generally in the night, and, taking an extensive spiral course, they are soon lost in the air.

The heron is not actually migratory, but traverses the country to a great distance, in quest of some convenient or favourite fishing-spot, and in its aërial journeys soars to a great height, to which the eye is directed by its harsh cry, uttered from time to time while on the wing. In flying, it draws the head between the shoulders, and the legs stretched out seem, like the longer tails of some birds, to serve the office of a rudder. The motion of their wings is heavy and flagging, and yet they get forward at a greater rate than would be imagined.

The elevated and marshalled flight of the wild geese seems dictated by geometrical instinct : shaped like a wedge, they cut the air with less individual exertion ; and

it is conjectured, that the change of its form from an inverted V, an A, and L, or a straight line, is occasioned by the leader of the van's quitting his post at the point of the angle, through fatigue, dropping into the rear, and leaving his place to be occupied by another.

In contemplating the history of these migratory birds, the following beautiful verses on the subject by Mrs. Hemans, aptly recur to our thoughts.

THE BIRDS OF PASSAGE.

Birds, joyous birds of the wandering wing !
Whence is it ye come with the flowers of spring ?
" We come from the shores of the green old Nile,
From the land where the roses of Sharon smile,
From the palms that wave through the Indian sky,
From the myrrh-trees of glowing Araby.

" We have swept o'er cities in song renown'd ;
Silent they lie, with the desert around !
We have cross'd proud rivers, whose tide hath roll'd
All dark with the warrior-blood of old :
And each worn wing hath regain'd its home,
Under the peasant's roof-tree, or monarch's dome."

And what have ye found in the monarch's dome,
Since last ye travers'd the blue sea's foam ?
" We have found a change,—we found a pall,
And a gloom o'ershadowing the banquet hall,
And a mark on the floor, as of life-drops spilt ;—
Nought looks the same, save the nest we built !"

O joyous birds, it hath still been so !
Through the halls of kings doth the tempest go !
But the huts of the hamlet lie still and deep,
And the hills o'er their quiet a vigil keep,
Say, what have ye found in the peasant's cot,
Since last ye parted from that sweet spot ?

" A change we have found there, and many a change !
Faces and footsteps and all things strange !
Gone are the heads of the silvery hair,
And the young that were, have a brow of care.
And the place is hush'd where the children play'd ;—
Nought looks the same, save the nest we made !"

Sad is your tale of the beautiful earth,
Birds that o'ersweep it in power and mirth !
Yet, through the wastes of the trackless air,
Ye have a guide, and shall we despair ?
Ye over desert and deep have pass'd—
So shall *we* reach our bright home at last !

The CHIMNEY SWALLOW.

PROFESSOR KALM relates the following story, on very credible authority—"A couple of swallows built their nest in the stable belonging to a lady he knew; and the female laid eggs in the nest, and was about to brood them. Some days afterwards the people saw the female still sitting on the eggs: but the male flying about the nest, and sometimes settling upon a nail, was heard to utter a very plaintive note, which betrayed his uneasiness. On a nearer examination, the female was found dead in the nest; and the people threw her body out. The male then went to sit upon the eggs; but after being about two hours on them, and perhaps finding the business too troublesome, he went out, and returned in the afternoon with another female, which sat upon the nest, and afterwards fed the young ones, till they were able to provide for themselves."

Miss Boldero, of Ixworth, near Bury St. Edmund's, domesticated a swallow. On the 19th of July, 1806, three young swallows fell down the chimney of this lady's bed-chamber, and being fond of birds, she determined, if possible, to rear them. Two of them died in the course of a week, but the third, by feeding it with boiled egg, mixed occasionally with bread, she succeeded in rearing. It grew fast, and continued in excellent health. As flies were its natural food, she supplied it with these as frequently as possible. It drank plentifully of water, and seemed to derive great pleasure from regularly washing itself. This bird grew so tame, that it would come to its mistress whenever she held out her finger for it to alight upon; and, thus perched, would catch every fly within its reach. Its eagerness in this act, and its manner of catching these insects; the snap of its beak in so doing, and its general docility, rendered it very amusing and interesting object. Frequently after dinner, Miss Boldero would bring it upon her finger into the dining room, a large and lofty apartment. Here it would fly about with great freedom; and, when tired, would come to its mistress to rest itself upon her. It did not appear to notice a small parrot, which was loose in the same room, and upon the perches of whose stand it was fond of alighting. If, however, the parrot attempted to attack it, the swallow

always opened its beak in a threatening manner, as if resolved to defend itself from insult.

When the usual time for the migration of its tribe approached, this bird became uneasy; and, as it was occasionally hung in a cage on the outside of the house, the other swallows came about it, and appeared to invite it to go with them. The swallows, so long as any remained, came every day to it; and when they had all disappeared, it became tolerably tranquil. Miss Boldero was extremely anxious to preserve it through the winter, and though aware of the difficulty she should have in feeding it through that season, resolved to make the attempt. On the 9th of October, however, after she had fed it as usual, and had left it in apparent health and vigour, she had the mortification, on returning to her chamber, to find it dead. The cause of its death she was unable to ascertain; but she imagined that the bird might have been inadvertently struck by the servant, while she was cleaning the room.

The MARTIN.

DURING the residence of a Mr. Simpson, at Welton, in North America, he one morning heard a noise from a couple of martins that were flying from tree to tree, near his dwelling. They made several attempts to get into a box or cage, which was fixed against the house, and which they had before occupied; but they always appeared to fly from it again with the utmost dread, at the same time repeating those loud cries which first drew his attention. Curiosity led this gentleman to watch their motions. After some time, a small wren* came from the box, and perched on a tree near it; when her shrill notes seemed to amaze her antagonists. Having remained a short time, she flew away. The martins took this opportunity of returning to the cage; but their stay was short. Their diminutive adversary entered, and made them retire with the greatest precipitation. They continued manœuvring in this way during the whole day; but on the following morning, when the wren quitted the cage, the martins immediately returned, took possession of their

* Probably *Certhia Familiaris* of Linnæus.

mansion, broke up their own nest, went to work afresh with extreme industry and ingenuity, and soon barricaded their doors. The wren returned, but could not now re-enter. She made attempts to storm the nest, but did not succeed. The martins, abstaining from food nearly two days, persevered during the whole of that time in defending the entrance; and the wren, finding she could not force the works, quitted her intentions, and left the martins in quiet possession of their dwelling.

The HIRUNDO ESCULENTA, or INDIAN SWALLOW.

THE edible birds' nests, exported in large quantities to the Chinese market, have long been known as the production of a small swallow (*hirundo esculenta*), but the process of forming them was not understood. On the dissection of one of these birds by Sir E. Home, he discovered a set of secretory organs peculiar to itself, by which there is little doubt the mucilaginous matter of these nests is elaborated. This little animal, frequenting the rocks and caverns of Java, furnishes an article of commerce, the annual value of which exceeds half a million of Spanish dollars. The best nests are those which are found in the bottom of deep damp caverns, where they imbibe a nitrous taste, well suited to the palate of the Chinese. The collectors of these birds' nests are at great pains to cleanse the rocks, and to fumigate the caverns, by burning sulphur in them, when they are left undisturbed for two or three years. The most valuable nests are those newly built, and taken before the eggs are laid; but to collect them in this state would be at once to destroy the breed, and therefore the usual time of gathering them is just after the young ones are fled. Slaves are generally employed in this business by the European inhabitants of the island; they are lowered by ropes down yawning caverns of immense depth, into which the sea gushes with the most tremendous roar beneath them; others cling to the narrow ledges of rocks suspended between sea and air; and, with that occupation, bird-nesting in Java may truly be called "a dreadful trade;" the poor slaves, however, think themselves well rewarded for their toil and danger with a buffalo, of which they make a feast, not a sacrifice, as it has been called.

The PIGEON.

JOHN LOCKMAN, the author of the musical drama of *Rosalinda*, when at the house of Mr. Lee, a gentleman in Cheshire, and whose daughter was a fine performer on the harpsichord, observed a pigeon, which, whenever the young lady played the song of "*Speri si*," in Handel's opera of *Admetos*, (and this only) would descend from an adjacent dove-house to the window of the room where she sat, and listen to it apparently with the most pleasing emotions; and when the song was finished, it always returned to the dove-house.

The following relation, however, by Mrs. Piozzi, is far more wonderful:—"An odd thing," says she, "to which I was this morning witness, has called my thoughts away to a curious train of reflections upon the animal race; and how far they may be made companionable and intelligent. The famous Ferdinand Bertoni, so well known in London by his long residence among us, and from the undisputed merit of his compositions, now inhabits this his native city, and being fond of dumb creatures, as we call them, took to petting a pigeon, one of the few animals that can live at Venice, where, as I observed, scarcely any quadrupeds can be admitted, or would exist with any degree of comfort to themselves. This creature has, however, by keeping his master company, I trust, obtained so perfect an ear and taste for music, that no one who sees his behaviour can doubt for a moment of the pleasure he takes in hearing Mr. Bertoni play and sing; for as soon as he sits down to the instrument, Colombo begins shaking his wings, perches on the piano-forte, and expresses the most indubitable emotions of delight. If, however, he or any one else strike a note false, or make any discord upon the keys, the dove never fails to shew evident tokens of anger and distress, and if teased too long, grows quite enraged, pecking the offender's legs and fingers in such a manner, as to leave nothing less doubtful than the sincerity of his resentment. Signora Cecilia Giuliani, a scholar of Bertoni's, who has received some overtures from the London theatre lately, will, if she ever arrives there, bear testimony to the truth of an assertion very difficult to believe, and to which I should hardly myself give credit, were I not witness to it every morning that I choose to call and confirm my own belief. A friend present pro-

tested that he should feel afraid to touch the harpsichord before so nice a critic ; and though we all laughed at the assertion, Bertoni declared he never knew the bird's judgment fail ; and that he often kept him out of the room, for fear of his affronting or tormenting those who came to take musical instructions. With regard to other actions of life, I saw nothing particularly in the pigeon, but his tameness, and strong attachment to his master ; for though never winged, and only clipped a very little, he never seeks to range away from the house, or quit his master's service, any more than the dove of Anacreon :

While his better lot bestows
Sweet repast and soft repose ;
And when feast and frolic tire,
Drops asleep upon his lyre."

The accounts of the enormous flocks in which the wild pigeons (*the Columba Passerina*) fly about in North America, seem to an European like the tales of Baron Munchausen ; but the travellers are "all in a story." In Upper Canada, says Mr. Howison, in his entertaining "Sketches," you may kill twenty or thirty at one shot out of the masses which darken the air. And in the United States, according to Wilson the ornithologist, they sometimes desolate and lay waste a tract of country forty or fifty miles long, and five or six broad, by making it their breeding-place. While in the state of Ohio, Mr. Wilson saw a flock of these birds which extended, he judged, more than a mile in breadth, and continued to pass over his head at the rate of one mile in a minute, during four hours—thus making its whole length about two hundred and forty miles.—According to his moderate estimate, this flock contained two thousand two hundred and thirty millions two hundred and seventy-two pigeons.

"I think," says Mr. Blackburne, in a letter to Mr. Penant, "that these are as remarkable birds as any in America. They are in vast numbers in all parts ; and have, at times, been of great service to our garrison, in supplying them with fresh meat, especially at the out-posts. A friend told me, that in the year in which Quebec was taken, the whole army was supplied with this subsistence. The way was this : every man took his club (for they were forbidden to use their firelocks), and the pigeons flew in such numbers, that each person could kill as many as he wanted. They in general begin to fly soon after day-break, and continue till nine or ten o'clock ; and again about three in the afternoon, and continue till five

or six; but what is very remarkable, their course is always westerly. The times of flying here are in the spring, about the latter end of February, or the beginning of March, and they continue their flight every day for eight or ten days; and again in the fall, when they appear at the latter end of July, or the beginning of August. The inhabitants catch vast numbers of them in clap-nets. I have seen them brought to the market at New York, by sacksful. People in general are very fond of them, and I have heard many say that they think them as good as our common blue pigeon; but I cannot agree in this opinion; the flesh tastes most like that of our quæst, or wild pigeon, but is better. Sir William Johnston told me, that at one shot, with a blunderbuss, he killed above a hundred and twenty. I must remark a single fact: that notwithstanding the whole people of a town go out *a-pigeoning*, as they call it, they do not, on some days, kill a single hen bird; and on the very next day not a single cock (and yet both sexes always fly westerly): and when this is the case, the people are always assured that there will be a great quantity of them that season."

The Turkey.

IN May, 1798, a turkey hen, which belonged to a gentleman in Sweden, was sitting upon eggs; and as the cock began to appear uneasy at her absence, he was put into the nest with her. He sat down by her side, and it was found that he had taken some of the eggs from under her, and was sitting upon them: they were put back, but he took them again. The owner, by way of experiment, made a nest for the cock, and put into it as many eggs as he could conveniently cover. The bird seemed highly pleased, sat with great patience, and was extremely attentive in the hatching of them. At the usual period, twenty-eight young ones appeared, but their parent, the cock, was not entrusted with the care of their education, lest he should neglect them.

Turkeys were introduced into England in the reign of Henry VIII. The first mention of them, as an article in our Christmas feasts, occurs in Tusser's "Five Hundred Pointes of good Husbandrie," about 1585—

"Beefe, mutton, and pork, shred pies of the best,
Pig, veale, goose, and capon, and turkie well drest,
Cheese, apples, and nuts jolly, carols to heare,
As then in the countrie is counted good cheare."

The following interesting account of this bird in its native state is taken from Buonaparte's American Ornithology:—

“The native country of the wild turkey extends from the north-western territory of the United States to the isthmus of Panama, south of which it is not to be found, notwithstanding the statements of authors, who have mistaken the curasow for it. In Canada, and the now densely peopled parts of the United States, wild turkeys were formerly very abundant; but, like the Indian and buffalo, they have been compelled to yield to the destructive ingenuity of the white settlers, often wantonly exercised, and seek refuge in the remotest parts of the interior. Although they relinquished their native soil with slow and reluctant steps, yet such is the rapidity with which settlements are extended and condensed over the surface of this country, that we may anticipate a day at no distant period, when the hunter will seek the wild turkey in vain.

“The wild turkeys do not confine themselves to any particular food; they eat maize, all sorts of berries, fruits, grasses, beetles; and even tadpoles, young frogs, and lizards, are occasionally found in their crops; but where the pecan nut is in plenty, they prefer that fruit to any other nourishment; their more general predilection is, however, for the acorn, on which they rapidly fatten. When an unusually profuse crop of acorns is produced in a particular section of country, great numbers of turkeys are enticed from their ordinary haunts in the surrounding districts. About the beginning of October, while the mast still remains on the trees, they assemble in flocks, and direct their course to the rich bottom lands. At this season, they are observed in great numbers on the Ohio and Mississippi. The time of this irruption is known to the Indians by the name of turkey month.

“The males, usually termed gobblers, associate in parties numbering from ten to a hundred, and seek their food apart from the females; while the latter either move about singly with their young, then nearly two-thirds grown, or, in company with other females and their families, form troops, sometimes consisting of seventy or eighty individuals, all of which are intent on avoiding the old males, who, whenever opportunity offers, attack and destroy the young, by repeated blows on the skull. All parties, however, travel in the same direction, and on foot, unless they

are compelled to seek their individual safety, by flying from the hunter's dog, or their march is impeded by a large river. When about to cross a river, they select the highest eminences, that their flight may be the more certain; and here they sometimes remain for a day or more, as if for the purpose of consultation, or to be duly prepared for so hazardous a voyage. During this time the males gobble obstreperously, and strut with extraordinary importance, as if they would animate their companions, and inspire them with the utmost degree of hardihood: the females and young also assume much of the pompous air of the males, the former spreading their tails, and moving silently around. At length the assembled multitude mount to the tops of the highest trees, whence, at a signal note from a leader, the whole together wing their way towards the opposite shore. All the old and fat ones cross without difficulty, even when the river exceeds a mile in width; but the young, meagre and weak, frequently fall short of the desired landing, and are forced to swim for their lives: this they do dexterously enough, spreading their tails for a support, closing their wings to the body, stretching the neck forwards, and striking out quickly and forcibly with their legs. If, in thus endeavouring to regain the land, they approach an elevated or inaccessible bank, their exertions are remitted, they resign themselves to the stream for a short time, in order to gain strength, and then, with one violent effort, escape from the water. But in this attempt all are not successful; some of the weaker, as they cannot rise sufficiently high in the air to clear the bank, fall again and again into the water, and thus miserably perish. Immediately after these birds have succeeded in crossing a river, they for some time ramble about without any apparent unanimity of purpose, and a great many are destroyed by the hunters, although they are then least valuable.

“When the turkeys have arrived in their land of abundance, they disperse in small flocks, composed of individuals of all sexes and ages intermingled, who devour all the mass as they advance: this occurs about the middle of November. It has been observed that, after these long journeys, the turkeys become so familiar as to venture on the plantations, and even approach so near the farm-houses as to enter the stable and corn cribs in search of food: in this way they pass the autumn, and part of the winter. During this season great numbers are killed by the inha-

bitants, who preserve them in a frozen state, in order to transport them to a distant market.

“Early in March they begin to pair; and for a short time previous, the females separate from and shun their mates, though the latter pertinaciously follow them, uttering their gobbling note. The sexes roost apart, but at no great distance, so that when the female utters a call, every male within hearing responds, rolling note after note, in the most rapid succession; not as when spreading the tail and strutting near the hen, but in a voice resembling that of the tame turkey, when he hears an unusual or frequently repeated noise. When the turkeys are numerous, the woods from one end to the other, sometimes for hundreds of miles, resound with this remarkable voice of their cooing, uttered responsively from their roosting places. This is continued for about an hour; and on the rising of the sun, they silently descend from their perches, and the males begin to strut for the purpose of winning the admiration of their mates.

“The male birds, even when on the roost, sometimes strut and gobble, but more generally merely elevate the tail, and utter the *puff*, on which the tail and other feathers suddenly subside. On light or moon-shining nights, near the termination of the breeding season, they repeat this action, at intervals of a few minutes, and several hours together, without rising from their perches.

“About the middle of April, when the weather is dry, the female selects a proper place in which to deposit her eggs, secured from the encroachment of water, and, as far as possible, concealed from the watchful eye of the crow: this crafty bird espies the hen going to her nest, and having discovered the precious deposit, waits for the absence of the parent, and removes every one of the eggs from the spot, that he may devour them at leisure. They are generally from nine to fifteen in number.

“The female always approaches her nest with great caution, varying her course so as rarely to reach it twice by the same route; and on leaving her charge, she is very careful to cover the whole with dry leaves, with which she conceals it so artfully, as to make it extremely difficult, even for one who has watched her movements, to indicate the exact spot; hence few nests are found, and these are generally discovered by fortuitously starting the female from them, or the appearance of broken shells, scattered around by some cunning lynx, fox, or crow. When lay-

ing or sitting, the turkey hen is not readily driven from her post by the approach of apparent danger: but if an enemy appears, she crouches as low as possible, and suffers it to pass. A circumstance related by Mr. Audubon will shew how much intelligence they display on such occasions: having discovered a sitting hen, he remarked that, by assuming a careless air, whistling or talking to himself, he was permitted to pass within five or six feet of her; but if he advanced cautiously, she would not suffer him to come within twenty paces, but ran off twenty or thirty yards with her tail expanded, when assuming a stately gait, she paused on every step, occasionally uttering a chuck. They seldom abandon their nests on account of being discovered by man, but should a snake or any other animal suck one of the eggs, the parent leaves them altogether. Mr. Audubon once found three females sitting on forty-two eggs. In such cases, the nest is constantly guarded by one of the parties, so that no crow, raven, nor even polecat, dares approach it.

"The young turkeys grow rapidly, and in the month of August, when several broods flock together, and are led by their mothers to their forest, they are stout, and quite able to secure themselves from the attacks of wolves, foxes, lynxes, and even cougars, by rising quickly from the ground, aided by their strong legs, and reaching with ease the upper limbs of the tallest tree. Amongst the numerous enemies of the wild turkey, the most dreaded are the large diurnal and nocturnal birds of prey, and the lynx (*Felix rufa*), who sucks their eggs, and is extremely expert in seizing both parent and young: he follows them for some distance, in order to ascertain their course, and then, making a rapid circular movement, places himself in ambush before them, and waits until, by a single bound, he can fasten on his victim.

"In proportion to the abundance or scarcity of food, and its good or bad quality, they are small or large, meagre or fat, and of an excellent or indifferent flavour: in general, however, their flesh is more delicate, more succulent, and better tasted, than that of the tame turkey: they are in the best order late in the autumn, or in the beginning of winter. The Indians value this food so highly, when roasted, that they call it 'the white man's dish,' and present it to strangers as the best they can offer. It seems probable, that in Mexico the wild turkey cannot obtain such substantial food as in the United States, since

Hernandez informs us, that their flesh is harder, and, in all respects, inferior to that of the domestic bird.

"The Indians make much use of their tails as fans; the women weave their feathers with much art, on a loose web made of the rind of the birch-tree, arranging them so as to keep the down on the inside, and exhibit the brilliant surface to the eye. A specimen of this cloth is in the Philadelphia Museum; it was found enveloping the body of an Indian female, in the great saltpetre cave of Kentucky.

"The first unquestionable description of the turkey was written by Oviedo, in 1525, in the summary of his History of the Indies. This bird was sent from Mexico to Spain early in the sixteenth century; from Spain it was introduced into England in 1524. Turkeys were taken to France in the reign of Frances I., whence they spread into Germany, Italy, &c.; a few, however, had been carried to the latter country by the Spaniards, some years previously. The first turkey eaten in France appears to have been served up at the wedding banquet of Charles IX., in the year 1570. Since that period they have been bred with so much care, that in England, as we read in ancient chronicles, their rapid increase rendered them attainable at country feasts, where they were a much esteemed dish, as early as 1585. Europeans conveyed them to all their colonies, and thus were they gradually introduced into Asia, Africa, and even Oceanica.

"Those who have not observed the turkey in its wild state, have only seen its deteriorated progeny, which are greatly inferior in size and beauty. So far from having gained by the care of man, and the abundance of food accessible in its state of domestication, this bird has degenerated, not only in Europe and Asia, but, what is certainly extraordinary, even in its native country.

"The male wild turkey, when full-grown, is nearly four feet in length, and more than five feet in extent.

"The female, or hen-turkey, is considerably smaller in size, being three feet and a quarter long.

"The weight of the hen generally averages about nine pounds avoirdupois. Mr. Audubon has shot barren hens, in strawberry time, weighing thirteen pounds; and he has seen some few so fat, as to burst open by falling from a tree, after being shot. The male turkeys differ more in bulk and weight: from the accounts I have received from

various parts of the Union, fifteen or twenty pounds may be considered a fair statement of their medium weight ; but birds of thirty pounds are not very rare ; and I have ascertained the existence of some weighing forty. In relation to those surpassing the last mentioned weight, according to the reports of authors who do not speak from personal observation, I have not been able to find any, and am inclined to consider them as fabulous."

The DOMESTIC COCK.

DR. CLARKE gives the following curious account of the mode of hatching chickens, as practised in Egypt :— " Before daylight in the morning, September 5," says he, " we went to the village of Rerinal, to see the manner of hatching poultry, by placing their eggs in ovens, so frequently mentioned by authors, and so well described by one of our ablest travellers, George Sandys. Notwithstanding this, the whole contrivance, and the trade connected with it, are accompanied by such extraordinary circumstances, that it required all the evidence of one's senses to give them credibility. We were conducted to one of the principal buildings constructed for the purpose ; and entered by a narrow passage, on each side of which were two rows of chambers, in two tiers, one above the other, with cylindrical holes, as passages, from the lower to the upper tier. The floor of the upper tier is grated and covered with mats, on which is laid camel's dung ; somewhat resembling the manner of placing hops, for drying, in English oat-houses. We counted twenty chambers, and in each chamber had been placed 3000 eggs ; so that the aggregate of the eggs then hatching, amounted to the astonishing number of sixty thousand. Of these, above half are destroyed in the process. The time of hatching continues from autumn until spring. At first all the eggs are put in the lower tier. The most important part of the business consists, of course, in a precise attention to the requisite temperature : this we would willingly have ascertained by the thermometer, but could not adjust it to the nice test adopted by the Arab superintendent of the ovens. His manner of ascertaining it is very curious. Having closed one of his eyes, he applies an egg to the outside of his eyelid : and if the heat

be not great enough to cause any uneasy sensation, all is safe ; but if he cannot bear the heat of the egg thus applied to his eye, the temperature of the ovens must be quickly diminished, or the whole hatch will be destroyed. During the first eight days of hatching, the eggs are kept carefully turned. At the end of that time the culling begins. Every egg is then examined, being held between a lamp and the eye ; and thus the good are distinguished from the bad, which are cast away. Two days after this culling, the fire is extinguished—then half the eggs upon the lower are conveyed to the upper tier, through the cylindrical passages in the floor ; and the ovens are closed. In about ten days more the chickens are hatched. At this time, a very singular ceremony ensues. An Arab enters the ovens, stooping and treading upon stones placed so that he may walk among the eggs without injuring them, and begins clucking like a hen, continuing this curious mimicry until the whole are disclosed. We heard this noise, and were equally surprised and amused by the singular adroitness of the imitation. The chickens thus hatched are then sold to persons employed in rearing them. Many are strangely deformed ; and great numbers die, not only in rearing, but even during the sale ; for, to add to the extraordinary nature of the whole undertaking, the proprietors of those ovens do not give themselves the trouble of counting the live chickens in order to sell them by number, but dispose of them, as we should say, by the gallon, heaping them into a measure containing a certain quantity, for which they ask the low price of a *parah*, rather more than a farthing of our money."

The domestic cock is, for its size, a very courageous bird. "A sparrow hawk (Buffon was a witness, and relates the anecdote) alighted in a populous court yard : a young cock, of this year's hatching, instantly darted at him, and threw him on his back. In this situation the hawk defended himself with his talons and his bill, intimidating the hens and turkeys, which screamed tumultuously around him. After he had a little recovered himself, he rose and was taking wing ; when the cock rushed upon him a second time, overturned him, and held him down so long, that he was caught."

Its well known courage has singled it out for the amusement of the gamester. Little cause, however, have the moderns to arrogate to themselves the invention of the very humane sport of cock-fighting. Alas ! here we

may indeed say, there is "nothing new under the sun." Cock-fighting may be traced to Grecians and Romans; yet lest the *breeder* or amateur should weep over the barrenness of modern times, let me hint for his consolation that the addition of steel or silver spurs is a modern discovery, and well deserves the praise of all who wish to see the blood flow, and flow freely; and to contemplate the agonies of death, when every pang changes the bet, and the last gasp may turn pounds into guineas. I am willing also to think that those horrid yells, and rapid exclamations of two to one, five to two, &c. during every perceptible variety in the animal's sufferings, have the merit of novelty.

Throwing at cocks, connected with the above, is alluded to by Chaucer: but this amusement has been, of late, nearly abolished, by certain magistrates, who seem to have no idea of promoting good by evil, and into whose heads it has never entered, that cruelty may be sport. This some, no doubt, will think is to be regretted; for as it was mostly practised by the young, it formed a very useful elementary exercise, and they had thereby an opportunity of being trained up in the way from which they are not very likely to depart. Much information on this subject may be derived from the four plates of that able historian William Hogarth, whose map of the road to murder is drawn with more accuracy than any thing of the kind we have seen.

In the Gentleman's Magazine for April, 1789, is the following:—"Died, April 4th, John Ardesoif, Esq., a young man of large fortune, and, in the splendour of his horses and carriages, rivalled by few country gentlemen. His table was that of hospitality, where, it may be said, he sacrificed too much to conviviality. Mr. Ardesoif was very fond of cock-fighting, and had a favourite cock, upon which he had won many profitable matches. The last bet laid upon this cock he lost, which so enraged him, that he had the bird tied to a spit, and roasted alive, before a large fire. The screams of the miserable animal were so affecting, that some gentlemen who were present attempted to interfere; which so enraged Mr. Ardesoif, that he seized a poker, and with the most furious vehemence declared that he would kill the first man who interfered: but in the midst of his passionate asseverations, he fell down dead upon the spot."

The inhabitants of Sumatra carry the practice of cock-

fighting to the greatest extent. They fight their cocks for vast sums ; a man has been known to stake his wife or children, and a son his mother or sisters, on the issue of a battle. In disputed points, four abitrators are chosen ; and if they cannot agree, there is no appeal but to the sword. A father, on his death bed, has been known to direct his son to lay his whole property on a certain bird.

The PARTRIDGE.

THE affection of the partridge for its young is peculiarly interesting. Both the parents lead their offspring out to feed, and assist them to search for food. They frequently sit close together, covering the young ones with their wings. When they are disturbed, the male gives the first signal of alarm, by a peculiar cry of distress, throwing himself at the same time more immediately into the way of danger. In order to mislead the enemy, he flutters along the ground, hanging his wings, and exhibiting every symptom of being lame. By this stratagem, he generally gains time for the female to conduct her young to a place of safety. Mr. White, of Selbourne, observed a partridge to come out of a ditch, which ran along shivering with her wings, and crying out as if unable to escape. In the mean time a boy who attended him, saw the young brood, which was small and unable to fly, run for shelter into an old fox hole on the bank.

"There seemed to me," says a modern traveller, "to be two kinds of partridges in the Pampas ; the one small, and similar to the quail of Europe, and the other considerably larger. They are found in great abundance all over the plains, and are taken by the Gauchos in several ways. The more usual method seemed that of galloping round the covey, continually fixing the eyes on them, and by closing the circle, they at last allow themselves to be taken up by a noose at the end of a stick. It is asserted that they exist on animal food, but it does not rest on good authority."

The QUAIL.

SUCH prodigious numbers of quails have sometimes appeared on the western coasts of Naples, that a hundred

thousand have been taken within a few miles in one day. In some parts of the south of Prussia, they abound in such numbers, that they are caught by thousands, and sent in casks to Moscow and Petersburg.

The OSTRICH.

THE beauty of the plumage of the ostrich, particularly of the long feathers that compose his wings and tail, is the chief reason why man has been so active in pursuing him into deserts, at so much expense and labour. The Arabs, who make a trade of killing these birds, formerly converted their skins into a kind of cuirass and buckler. The ancients used their plumes as ornaments for their helmets. The ladies in the east make them still an ornament in their dress; and not long since, the fine gentlemen of our own country made use of them in decorating their hats. In Turkey, the janissary who has signalized himself by some military achievement, is allowed to assume them as a decoration to his turban; and the sultan, in the seraglio, when meditating conquests and feats of a gentle nature, puts them on as the most irresistible ornament of his person.

The South American ostrich (*nandu*) is met with in considerable numbers in the Pampas. It is about half the size of the African species, and the plumage is of little use. It is said that several females lay eggs of a yellowish colour in one nest, and that they are hatched by the male. They run excessively fast, and are taken by the Gauchos with balls, in the same way as the swan, only that these balls are formed of stones covered with pieces of hide.

The STORK.

"AT a short distance from Hamburg," says a recent traveller in the north of Germany, "I was much struck with the appearance of a farm-house; and I perceived that the storks had built their nests on the roof. These birds are every where on terms of peace with man, but they meet with particular marks of respect in the north of Germany, and in Holland, to which countries they render important services, in delivering them from a great

number of unpleasant reptiles, engendered by the humidity of the soil. In the cities, as well as the country, their dwellings are respected, and preserved for a number of years on the same tower, or on the same roof.

"The bird returns annually, after having completed its residence in more southern countries. He is a traveller who for a certain time has forsaken his household gods, with an assurance of meeting with them again on his return. Relying on finding an asylum, and enjoying all the rites of hospitality, the storks repair to their labour with an entire security, and often associate with man himself, placing themselves by his side in the fields, and in the gardens. It is a spectacle of peace, of concord, and benevolence, which the imagination is delighted to contrast with that of those animosities, feuds, and devastations, which appear to form the habitual destiny of this earth."

A wild stork was brought by a farmer, who resided near Hamburgh, into his poultry-yard, to be the companion of a tame one that he had long kept there; but the tame stork, disliking a rival, fell upon the poor stranger, and beat him so unmercifully, that he was compelled to take wing, and with some difficulty escaped. About four months afterwards, however, he returned to the poultry yard, recovered of his wounds, and attended by three other storks, who no sooner alighted, than they all together fell upon the tame stork and killed him.

The GIGANTIC CRANE

Is an inhabitant of Bengal and Calcutta, and is sometimes found on the coast of Guinea. It arrives in the interior parts of Bengal before the period of the rains, and retires as soon as the dry season commences. It measures from tip to tip of the wings nearly fifteen feet. Its aspect is filthy and disgusting; yet it is an extremely useful bird, in consequence of the snakes, noxious reptiles, and insects which it devours. It sometimes feeds on fish, and one of them will devour as much as would serve four men to dinner. On opening the body of a gigantic crane, there were found in its craw a land tortoise ten inches long, and in its stomach a large black cat. It is soon rendered familiar with mankind.

The WOODCOCK.

THE following anecdote is taken from Bewick :—"In the winter of 1797, the gamekeeper of E. M. Pleydell, Esq., of Whatcomb, in Dorsetshire, brought home a woodcock, which he had caught in a net set for rabbits, alive and unhurt. Mr. Pleydell scratched the date upon a bit of thin brass, and bent it round on the woodcock's leg, and let it fly. In December the next year, Mr. Pleydell shot this bird, with the brass about its leg, in the very same wood where it had first been caught by the gamekeeper."

The woodcock is a migratory bird. Very few woodcocks breed in England ; and those that do, may have been so wounded by sportsmen in the winter, as to be disabled from taking their long journey in spring. They construct their nests upon the ground, and are so tame during incubation, that a person who discovered a woodcock upon its nest, often stood over, and even stroked it, notwithstanding which, it hatched its young ones, and disappeared with them at the regular time.

The LAPWING.

THE following anecdote is also related by Bewick. Two lapwings were given to a clergyman, who put them into his garden ; one of them soon died. The other was compelled, by the approach of winter, to draw near to the house, and gradually became familiarized to interruptions from the family. At length one of the servants, when she had occasion to go into the back kitchen with a light, observed that the lapwing always uttered his cry of *pee-wit*, to obtain admittance. The bird soon grew more familiar ; as the winter advanced, he approached as far as the kitchen ; but with much caution, as it was generally occupied by a dog and cat, whose friendship, however, the lapwing so entirely conciliated, that it was his regular custom to resort to the fire-side as soon as it grew dark, and spend the evening and night with his two associates, sitting close by them, and partaking of the comforts of the warmth. When spring returned, he betook himself again entirely to the garden ; but on the approach of winter, he returned to his old shelter and

friends, who most cordially received him. He died in the asylum which he had thus chosen, being choked with something which he had picked up from the floor.

The HOOPER, or WHISTLING SWAN.

IN January, 1822, a sportsman of Reading, Berks, shot on the Thames a whistling swan, of which the following account was published at the time :—It is much smaller than the tame species, the bill is three inches long, yellow to the middle, but black at the end ; the whole plumage is white, and the legs are black. This species is an inhabitant of the northern regions, never appearing in England but in hard winters, when flocks of five or six are now and then seen. In Iceland these birds are objects of chase. In the month of August they lose their feathers to such a degree, as not to be able to fly. The natives at that season resort in great numbers to the places where they most abound, and are accompanied with dogs and active strong horses, trained to the sport, and capable of passing nimbly over the boggy soil and marshes. The swan will run as fast as a tolerably fleet horse. The greater number are caught by dogs, which are taught to seize them by the neck—a mode of attack which causes them to lose their balance, and become an easy prey. The voice of this bird sounds *whoogh, whoogh*, very loud and shrill, but not disagreeable when heard high in the air, and modulated by the winds.

The TAME, or MUTE SWAN.

THIS bird is very strong, and at times extremely fierce. It has been known to throw down and trample upon youths of fifteen or sixteen years of age. And we are told that an old swan has been able to break the leg of a man with one stroke of his wing. At Pensy, in Buckinghamshire, a female swan, while in the act of sitting, observed a fox swimming towards her from the opposite shore : she instantly darted into the water, and having kept him at bay for a considerable time with her wings, at last succeeded in drowning it. This bird sometimes lives to the great age of one hundred years.

The swan of the Rio de la Plata is a most elegant bird ; the body is perfectly white, and the head and a portion

of the neck black. It is so abundant, that some traffic is carried on in its down and skin. The mode of taking this bird is as follows:—A man enters the water with three large wooden balls, two of which are fastened at one end of a long thong of leather, and the third, attached to the other extremity, he holds in his hand: gently approaching the swan, he throws the balls with such dexterity that they twist round the neck, and, as they are made of wood, the bird cannot escape by diving. Two companions follow to pick up the birds.

The SNOW GOOSE.

THE snow geese are very numerous about Hudson's Bay, and are found in several of the northern parts of the old continent. They are about the size of common geese. Their general colour is white, except the first ten quills of the wings, which are black, with white shafts. They have so little shyness, that in Siberia they are caught in the most ridiculous mode. The inhabitants place near the banks of the rivers a great net in a straight line; or else form a hovel of skins sowed together. One of the company dresses himself in the skin of a white rein-deer, advances towards the flock of geese, and then turns back towards the net or hovel; and his companions go behind the flock, and make a noise to drive them forward. The simple birds mistake the man in white for their leader, and follow him within reach of the net, which is suddenly let down upon them. When they are to be caught with a hovel, he creeps in by a hole left at the side for that purpose, and out at an opening on the opposite side, which he closes up: the geese follow him through the first, when he passes round the outside and secures them all.

The GOOSE.

THE following relation was communicated to M. de Buffon, by a man of veracity:—"There were two ganders, a grey and a white one (the latter named *Jacquot*), with three females. The males were perpetually contending for the company of these dames. When one or the other prevailed, it assumed the direction of them, and hindered its rival from approaching. He who was the

master during the night, would not yield the next morning; and the two gallants fought so furiously, that it was necessary to be speedy in parting them. It happened one day, that being drawn to the bottom of the garden by their cries, I found them with their necks entwined, striking their wings with rapidity and astonishing force: the three females turned round, as wishing to separate them, but without effect: at last the white gander was worsted, overthrown, and maltreated by the other. I parted them; happily for the white one, as he would otherwise have lost his life. Then the conqueror began screaming and gabbling, and clapping his wings, and ran to join his mistresses, giving each a noisy salute, to which the three dames replied, ranging themselves at the same time round him. Meanwhile poor Jacquot was in a pitiable condition; and retiring, sadly vented at a distance his doleful cries. It was several days before he recovered from his dejection; during which time I had sometimes occasion to pass through the court where he strayed. I saw him always thrust out from society; and whenever I passed, he came gabbling to me. One day he approached so near, and showed so much friendship, that I could not help caressing him, by stroking with my hand his back and neck; to which he seemed so sensible, as to follow me into the entrance of the court. Next day, as I again passed, he ran to me, and I gave him the same caresses; with which alone he was not satisfied, but he seemed, by his gestures, to desire that I should introduce him to his mates. I accordingly led him to their quarter; and, upon his arrival, he began his vociferations, and directly addressed the three dames, who failed not to answer him. Immediately his late victor sprang upon Jacquot. I left them for a moment; the grey one was always the stronger; I took part with my Jacquot, who was under. I set him over his rival; he was thrown; I set him up again. In this way they fought eleven minutes; and, by the assistance which I gave him, he at last obtained the advantage, and got possession of the three dames. When my friend Jacquot saw himself the master, he would not venture to leave his females, and therefore no longer came to me when I passed: he only gave me at a distance many tokens of friendship, shouting and clapping his wings; but he would not quit his companions, lest, perhaps, his rival should take possession. Things went on in this way till the breeding season, and

he never gabbled to me but at a distance. When his females, however, began to sit, he left them, and redoubled his friendship to me. One day, having followed me as far as the ice-house at the top of the park, the spot where I must necessarily part with him in pursuing my path to a wood at half a league distance, I shut him in the park. He no sooner saw himself separated from me, than he vented strange cries. However I went on my road, and had advanced about a third of the distance, when the noise of a heavy flight made me turn my head : I saw my Jacquot only four paces from me. He followed me all the way, partly on foot, partly on wing ; getting before me, and stopping at the cross-paths to see which way I should take. Our journey lasted from ten o'clock in the morning till eight in the evening ; and my companion followed me through all the windings of the wood, without seeming to be tired. After this he attended me every where, so as to become troublesome ; for I was not able to go to any place without his tracing my steps, so that one day he even came to find me in the church. Another time, as he was passing by the rector's window, he heard me talking in the room ; and, as he found the door open, he entered, climbed up stairs, and marching in, gave a loud exclamation of joy, to the no small affright of the family."

The friendship between Jacquot and his master continued about two years, when he became so troublesome, as to render it necessary to shut him up. In this confinement he pined away about a year, and died of vexation.

The CANADA GOOSE.

THE Canada goose is somewhat larger than the common goose. They appear annually in immense flocks in spring, at Hudson's Bay, they pass farther north to breed, and return southward in the autumn. Their colour is a dusky brown, with black head, neck, and bill, and a broad white band under the throat. The quills and tail are also black, and the legs of a dark lead colour.

Little Grove, near East Barnet, was the residence of Mr. Justice Willes, who purchased it of F. W. Sharpe, Esq. Mr. Sharpe's father had, at this place, a Canada goose, which formed an extraordinary affection for a house-dog. The story is extremely well attested, and

furnishes a very curious anecdote in natural history. It was drawn up by Mr. F. W. Sharpe, and inserted in his copy of Willoughby's Ornithology :—

“The following account of a Canada goose is so extraordinary, that I am aware it would with difficulty gain credit, were not a whole parish able to vouch for the truth of it. The Canada geese are not fond of a poultry-yard, but are rather of a rambling disposition : one of these birds, however, was observed to attach itself in the strongest and most affectionate manner to the house-dog ; and would never quit the kennel, except for the purpose of feeding, when it would return again immediately. It always sat by the dog ; but never presumed to go into the kennel, except in rainy weather. Whenever the dog barked, the goose would cackle and run at the person she supposed the dog barked at, and try to bite him by the heels. Sometimes she would attempt to feed with the dog ; but this the dog, who treated his faithful companion rather with indifference, would not suffer.

“This bird would not go to roost with the others at night, unless driven by main force ; and when, in the morning, she was turned into the field, she would never go from the yard gate, but sit there the whole day, in sight of the dog. At last orders were given that she should be no longer molested, but suffered to accompany the dog as she liked. Being thus left to herself, she ran about the yard with him all the night ; and, what is particularly extraordinary, and can be attested by the whole parish, whenever the dog went out of the yard, and ran into the village, the goose always accompanied him, contriving to keep up with him by the assistance of her wings, and in this way of running and flying followed him all over the parish.

“This extraordinary affection of the goose towards the dog, which continued till his death, two years after it was first observed, is supposed to have originated from his having accidentally saved her from a fox, in the very moment of distress. While the dog was ill, the goose never quitted him day or night, not even to feed ; and it was apprehended that she would have been starved to death, had not orders been given for a pan of corn to be set every day close to the kennel. At this time, the goose generally sat in the kennel ; and would not suffer any one to approach it, except the person who brought the dog's or her own food. The end of this faithful bird

was melancholy : for, when the dog died, she would still keep possession of the kennel ; and a new house-dog being introduced, which in size and colour resembled that lately lost, the poor goose was unhappily deceived, and going into the kennel as usual, the new inhabitant seized her by the throat, and killed her."

The Duck.

THERE was exhibited at Bagouere, near Clementin, in the former Haut-Poitou, a very singular friendship and attachment contracted between a duck and a turkey. These animals never left each other : and death was able to separate them only for a few hours. Sentence of death being pronounced against the turkey, the cook prepared to perform her functions. The duck, witness of the death of his companion, uttered cries of despair, and even attempted to take vengeance on the cook, by attacking her with his bill ; but none of his efforts could prevent or defer the arrival of the moment which was to deprive him of his companion. His affliction was so strong, that thenceforward he refused all sort of food. He passed three days without eating ; and, to all appearance, he would have starved himself to death, had he not been condemned to follow the fate of the turkey.

The PERROQUET AUK.

THIS bird is found in flocks in Kamtschatka, in the isles towards Japan, and on the western coast of America.

In the night they harbour in crevices of rocks. They are very stupid birds, and permit themselves to be caught in the most extraordinary manner. One of the natives places himself towards evening, among the rocks, under a loose fur garment, of a particular shape, with large open sleeves, when the birds, returning to their lodging places at dusk, run under the skirts and up the arm-holes, in order to shelter themselves during the night ; the man concealed beneath kills them as fast as they enter, and often takes as many in one evening as he can carry away. They often fly on board ships, taking them for roosting places.

The PELICAN.

THE following account of this bird is taken from Golberry's Travels :—"The river Senegal is frequently, but particularly during the rainy season, covered with pelicans, which we also call great-throats.

"I have seen passing before isle St. Louis troops of forty at a time, swimming slowly and majestically, without seeming to have the least inquietude at the appearance of men.

"The largest pelicans are five feet six inches in length from the tip of the beak to that of the tail; the extremity between the wings six feet; the beak is near a foot and a half long; its upper part consists of a bony blade, which is terminated by a hook a little pointed; the lower part is composed of two flexible branches, which stretch to the extension of the membraneous bag that is attached to them. This bag is so large and capable of expansion, that it can contain twenty pints of water.

"The colour of the pelican when young is a fine white, mixed with a beautiful and soft vermilion tint; and this charming tincture of the pelicans in their youth, renders their plumage extremely handsome.

"At a greater age these birds become white, and in their decline the whiteness of their plumage is tarnished with yellow.

"The sides of its head are devoid of plumage, and covered with a skin of a flesh-colour; the rest of the head, and the upper part of the neck, are adorned with a fine, soft, but very short down. The large feathers of the wings are black; the smaller ones are white, as are those of the tail.

"These birds are very common in the river Senegal, and on the waters of the Gambia; they appear at the mouths of these rivers, particularly during the rainy season.

"They arrive in very numerous troops, swimming with equal grace and majesty. One of them is always at the head of the troop, the others follow irregularly, separated, and at a certain distance from each other.

"When they have arrived either near the mouth of the rivers, or the sea, they take flight, rise very high, and return to their places from whence they had set out, with their bags well loaded with fish.

"This amphibious bird flies as well as it swims, and rises in the air till it is imperceptible. I thought it was more noble and graceful than the swan, which has only an affectation of majesty, and which has not the advantage of flying, neither so easily nor so high as the great-throat.

"In the interior countries the negroes rear some, and make them very tame; they leave them at liberty upon the lakes, and on the branches, and they feed them with fish: they assured me that those birds lived a very long time, and that some have attained the age of a hundred years. This longevity of the pelican is believed among the negroes of the banks of the Senegal and Gambia.

"This bird delights only in fresh water, and appears near the mouths of the rivers of Africa, during the rainy months alone, because then the rain is so considerable that it increases the rivers, so much that none of the briny water of the sea can enter."

The GANNET, or SOLAN GOOSE.

THIS bird darts on its prey with amazing force. They are sometimes caught by tying a herring on a board, and setting it afloat, so that, by falling furiously upon it, the bird may break its neck. Some years ago one of these birds was flying over Penzance, in Cornwall, when seeing some pilchards lying on a fir plank, in a place for curing these fish, it darted down with so much violence, as to strike its bill quite through an inch-and-a-quarter plank, and killed itself on the spot.

The BOOBY.

THE greatest enemy of this bird is the frigate pelican (the *pelecanus aquilus* of Linnæus, called by some the man-of-war bird; but it must not be confounded with the albatross, known also by that name). "As soon," says Catesby, "as the pirate (for so he names the frigate pelican) perceives that he has caught a fish, he flies furiously against it, and obliges it to dive under water for safety: the pirate, not being able to follow it, hovers above the water till the booby is obliged to emerge for respiration, and then attacks it again while spent and breathless, and

compels it to surrender its fish : it now returns to its labours, and has to suffer fresh attacks from its enemy." Dampier gives a curious account of the hostilities between what he calls the man-of-war birds, and the boobies, in the Alcrane Islands, on the coast of Yucatan. "These birds were crowded so thick, that I could not pass their haunts without being incommoded by their pecking. I observed that they were ranged in pairs ; which made me presume that they were male and female. When I struck them, some flew away ; but the greater number remained, and would not stir, notwithstanding all I could do to rouse them. I remarked, also, that the man-of-war birds and the boobies always placed sentinels over their young ones, especially when they went to sea for provisions. Of the man-of-war birds, many were sick or maimed, and seemed unfit to procure their subsistence. They lived not with the rest of their kind, being either expelled from society, or separated by choice ; and were dispersed in different places, probably that they might have a better opportunity of pillaging. On one of the islands, I once saw more than twenty sally out from time to time into the open country, in order to carry off booty, and return again almost immediately. When one of them surprised a young booby that had no guard, he gave it a violent peck on the back to make it disgorge, which it did instantly ; it cast up one or two fish about the bulk of one's hand, which the old man-of-war bird swallowed. The vigorous ones play the same game with the old boobies which they find at sea. I saw one myself, which flew against a booby ; and, with one stroke of its bill made him deliver up a fish that he had just swallowed. The man-of-war bird darted so rapidly, as to catch this fish in the air before it could fall into the water."

The FISHING CORVORANT.

THE following account of this bird is given by Sir George Staunton. "The embassy," says he, "had not proceeded far on the southern branch of the Imperial canal, when they arrived in the vicinity of a place where the leutze, or famed fishing-bird of China, is bred, and instructed in the art and practice of supplying his owner with fish in great abundance. On a large lake, close to this part of the canal, and to the eastward of it, are

thousands of small boats and rafts, built entirely for this species of fishing. On each boat or raft, are ten or a dozen birds, which, at a signal from the owner, plunge into the water; and it is astonishing to see the enormous size of the fish with which they return, grasped within their bills. They appeared to be so well trained, that it did not require either ring or cord about their throats, to prevent them from swallowing any portion of their prey, except what the master was pleased to return to them for encouragement and food. The boat used by these fishermen is of a remarkably light make, and is often carried to the lake, together with the fishing birds, by the men who are there to be supported by it.

The CHINESE DIVER,

(*Colymbus Sinensis*) is also used by the Chinese in this mode of fishing.

SEA FOWLING.

As the coast between Hampshire and the Isle of Wight is of a peculiar species; consisting, when the tide ebbs, of vast muddy flats, covered with green sea-weed; it gives the fowler an opportunity of practising arts, perhaps practised nowhere else.

Fowling and fishing, indeed, on this coast, are commonly the employments of the same person. He who, in summer, with his line, or his net, plies the shores, when they are overflowed by the tide; in winter, with his gun, as evening draws on, runs up, in his boat, among the little creeks and crannies, which the tide leaves in the mud-lands, and there lies in patient expectation of his prey.

Sea-fowl commonly feed by night; when, in all their multitudes, they come down to graze on the savannahs of the shore. As the sonorous cloud advances—for their noise in the air resembles a pack of hounds in full cry—the attentive fowler listens which way they bend their course. Perhaps, he has the mortification to hear them alight at too great a distance for his gun, though of the longest barrel, to reach them; and, if he cannot edge his boat a little round some winding creek, which it is not always in his power to do, he despairs of success that

night. Perhaps, however, he is more fortunate; and has the satisfaction to hear the airy noise approach nearer: till, at length, the host settles on some plain, on the edge of which his little boat lies moored. He now, as silently as possible, primes both his pieces anew—for he is generally double armed—and listens with all his attention. It is so dark, that he can take no aim: for, if he could see the birds, they also could see him; and, being shy and timorous in a great degree, would seek some other pasture. Though they march with music, they feed in silence. Some indistinct noises, however, if the night be still, issue from so large a host. He directs his piece, therefore, as well as he can, towards the sound; gives his fire at a venture; and, instantly catching up his other gun, gives a second discharge, where he supposes the flock to rise on the wing. His gains, for the night, are now decided; and he has only to gather his harvest. He immediately puts on his mud-pattens—these are flat pieces of board, which the fowler ties to his feet, that he may not sink in the mud—ignorant, yet, of his success; and goes groping about in the dark, happy if he have a little star-light, in quest of his booty: picking up, perhaps, a dozen; and, perhaps, not one. So hardly does the poor fowler earn a few shillings! Exposed, in an open boat, during a solitary winter-night to the weather, as it comes; rain, hail, or snow; on a bleak coast; a league, perhaps, from the beach; and often in danger, without great care, of being fixed in the mud, where he would become an inevitable prey to the returning tide. I have heard one of these poor fellows say, that he never takes a dog with him on these expeditions, because no dog could bear the cold which he is obliged to suffer. After all, perhaps, others enjoy more from his labours than he himself does; for it often happens, that the tide next day throws, on different parts of the shore, many of the birds which he had killed, but could not find in the night.

I have heard of an unhappy fowler, whom this hazardous occupation led into a case of still greater distress. In the day-time, too, it happened; which shows the double danger of such expeditions in the night. Mounted on his mud-pattens, he was traversing one of these mudland-plains in quest of ducks; and being intent only on his game, he suddenly found the waters, which had been brought forward with uncommon rapidity, by some peculiar circumstance of tide and current, had made an alarming progress

around him. Incumbered as his feet were, he could not exert much expedition; but, to whatever part he ran, he found himself completely invested by the tide. In this uncomfortable situation, a thought struck him as the only hope of safety. He retired to that part of the plain which, from its being yet uncovered by water, seemed the highest; and striking the barrel of his gun, which, for the purpose of shooting wild-fowl, was very long, deep into the mud, he resolved to hold fast by it, as a support, as well as a security against the waves, and to wait the ebbing of the tide. A common tide, he had reason to believe, would not, in that place, have reached above his middle: but, as this was a spring tide, and brought in with so strong a current, he durst hardly expect so favourable a conclusion. In the mean time the water, making a rapid advance, had now reached him. It covered the ground on which he stood—it rippled over his feet—it gained his knees—his waist, button after button, was swallowed up, till, at length, it advanced over his very shoulders. With a palpitating heart, he gave himself up for lost. Still, however, he held fast by his anchor. His eye was eagerly in search of some boat, which might accidentally take its course that way: but none appeared. A solitary head, floating on the water, and that sometimes covered by a wave, was no object to be descried from the shore, at the distance of half a league: nor could he exert any sounds of distress, that could be heard so far! While he was thus making up his mind, as the exigence would allow, to the terrors of sudden destruction, his attention was called to a new object. He thought he saw the uppermost button of his coat begin to appear! No mariner, floating on a wreck, could behold a cape at sea, with greater transport, than he did the uppermost button of his coat! But the fluctuation of the water was such, and the turn of the tide so slow, that it was yet some time before he durst venture to assure himself that the button was fairly above the level of the flood. At length, however, a second button appearing at intervals, his sensations may rather be conceived than described; and his joy gave him spirits and resolution to support his uneasy situation four or five hours longer, till the waters had fully retired.

AMPHIBIOUS ANIMALS.

The Land Tortoise.

THE following interesting account of the terrapin, or land tortoise of the Galapagos Islands, is given by Captain Delano, in his *Voyages and Travels*, printed at Boston, in 1807:—

“The terrapin, or, as it is sometimes called, the land tortoise, that is found at the Galapagos Islands, is by far the largest, best, and most numerous, of any place I ever visited. Some of the largest weigh three or four hundred pounds; but their common size is between fifty, and one hundred pounds. Their shape is somewhat similar to that of our small land tortoise, which is found upon the upland, and is, like it, high and round on the back. They have a very long neck, which, together with their head, has a disagreeable appearance, very much resembling a large serpent. I have seen them with necks two or three feet long, and when they saw any thing that was new to them, or met each other, they would raise their heads as high as they could, their necks being nearly vertical, and advance with their mouths wide open, appearing to be the most spiteful of any reptile whatever. Sometimes two of them would come up to each other in that manner, so near as almost to touch, and stand in that position for two or three minutes, appearing so angry, that their mouths, heads, and necks appeared to quiver with passion, when by the least touch of a stick against their necks or heads, they would shrink back in an instant, and draw their necks, heads, and legs, into their shells. This is the only quick motion I ever saw them perform. I was put in the same kind of fear that is felt at the sight, or near approach of a snake, at the first one I saw, which was very large. I was alone at the time, and he stretched himself as high as he could, opened his mouth, and advanced towards me. His body was raised more than a foot from the ground, his head turned forward in the manner of a snake in the act of biting, and raised two feet and a half above his body. I had a musket in my hand at the time, and when he advanced near enough to reach him with it, I held the muzzle out, so that he hit his neck against it, at the touch of which he dropped himself upon the ground,

and instantly secured all his limbs with his shell. They are perfectly harmless, as much so as any animal I know, notwithstanding their threatening appearance. They have no teeth, and of course they cannot bite very hard. They take their food into their mouths, by the assistance of the sharp edge of the upper and under jaw, which shut together, one a little within the other, so as to nip grass, or any flowers, berries, or shrubbery, the only food they eat." Delano thought that he remarked considerable sagacity in the manners of the terrapin, more than common in this order of animals. "They were brought to be as tame," he says, "on board the ship, as a goat or a sheep. They were so strong, that they could walk about with a man on their backs."

The TURTLE.

"WHILE our people were employed in fetching some sea water," says Prince Maximilian, "and in picking up drift-wood on the beach, we found to our great surprise, at a short distance from our fire, a prodigious sea-turtle, (*testudo mydas*, Linn.) which was just going to deposit its eggs. Nothing could be more welcome to our hungry company; the animal seemed to have come expressly to provide us with a supper. Our presence did not disturb it; we could touch it, and even lift it up; but to do this, it required the united strength of four men. Notwithstanding all our exclamations of surprise, and our deliberations what to do with it, the creature manifested no sign of uneasiness, but a kind of hissing, nearly like the noise made by the geese, when any one approaches their young. It continued to work, as it had commenced, with its fin-like hinder feet, digging in the sand a cylindrical hole, from eight to twelve inches broad; it threw the earth very regularly and dexterously; and as it were, keeping time on both sides, and began immediately after to deposit its eggs.

"One of our soldiers laid himself all along on the ground, near the purveyor of our kitchen, and took the eggs out of the hole as fast as the turtle deposited them; and in this manner we collected one hundred eggs, in about ten minutes. We considered whether we should add this fine animal to our collections; but the great weight of the turtle, which would have required a mule

for itself alone, and the difficulty of loading such an awkward burden, made us resolve to spare its life, and to content ourselves with its eggs.

"These huge animals, the midas and the soft-shelled turtle (*testudo mydas* and *coriacea*, as well as the *testudo caretta*, or *cavanna*), deposit their eggs in the sand, in the warmest months in the year, particularly in the uninhabited part of the coast, between the Riacho and the Mucuri; they come on shore for this purpose in the evening twilight, drag their heavy bodies up the sandy coast, dig a hole, in which they deposit their eggs, fill it up with sand, which they tread down, and an hour or two after sunset return to the sea. This was the case with the turtle which had so amply supplied us; when we came back to the strand a few hours afterwards, it was gone; it had filled up the hole, and the broad track left by it in the sand shewed that it had returned to its proper element. A single turtle of this kind can furnish an abundant repast with its eggs for a whole company; for the midas is said to lay at once ten or twelve dozen, and the soft-shelled from eighteen to twenty dozen. These eggs are a very nutritious food and are, therefore, eagerly sought after on this desert coast by the Indians, and in the neighbourhood of the colony, also by the whites."

The substance which we call tortoise-shell, is the production of the imbricated turtle (*testudo imbricata* of Linn.), which is found in the American and Asiatic seas, and sometimes in the Mediterranean.

The Frog.

THE following account of a mine of frogs is related by Dr. Williams, of the state of Vermont, in America:—

"There are several accounts in natural history of toads being found in the hearts of trees and in solid rocks, wholly enclosed and shut up from the air and to all appearance, from food, and being taken alive out of such situations. In the Memoirs of the Academy of Sciences there is an account that, in the year 1731, a toad was found in the heart of an old oak, near Nantz, without any visible entrance to its habitation. From the size of the tree, it was concluded that the toad must have been confined in that situation, at least eighty or a hundred years. We have several instances in Vermont,

equally extraordinary. At Windsor, a town joining to the Connecticut river, in September, 1790, a living frog was dug up at the depth of nine feet from the surface of the earth. Stephen Jacobs, Esq. from whom I have this account, informs me, that the place where this frog was found was about half a mile from the river, on the interval lands, which are annually overflowed by its waters. At Castleton, in the year 1779, the inhabitants were engaged in building a fort near the centre of the town. Digging into the earth five or six feet below the surface, they found many frogs, apparently inactive, and supposed to be dead. Being exposed to the air, animation soon appeared, and they were found to be alive and healthy. I have this account from General Clarke and Mr. Moulton, who were present when these frogs were dug up. Upon viewing the spot, it did not appear to me that it had ever been overflowed with water, but it abounded with springs. A more remarkable instance was at Burlington, upon Onion river. In the year 1788, Samuel Lane, Esq. was digging a well near his house. At the depth of twenty-five or thirty feet from the surface of the earth, the labourers threw out with their shovels something which they suspected to be ground-nuts, or stones covered with earth. Upon examining these appearances they were found to be frogs, to which the earth every where adhered. The examination was then made of the earth, in the well where they were digging; a large number of frogs were found covered with the earth, and so numerous, that several of them were cut in pieces by the spades of the workmen. Being exposed to the air, they soon become active; but, unable to endure the direct rays of the sun, the most of them perished. This account is from Mr. Lane and Mr. Lawrence, two of the workmen, who were both present when the frogs were dug up. From the depth of earth with which these frogs were covered, it cannot be doubted but that they must have been covered over in the earth for many years, or rather centuries. The appearances denote that the place from whence these frogs were taken, was once the bottom of a channel or lake, formed by the waters of Onion river. In digging the same well, at the depth of forty-one feet and a half from the surface, the workmen found the body of a tree eighteen or twenty inches in diameter, partly rotten, but the biggest part sound. The probability is, that both the tree and the frogs were once

at the bottom of the channel of a river or lake ; that the waters of Onion river, constantly bringing down large quantities of earth, gradually raised the bottom ; that by the constant increase of earth and water, the water was forced over its bounds, forming for itself a new channel or passage in its descent into Lake Champlain. How vigorous and permanent must the principle of life be in this animal ! Frogs placed in a situation in which they were perpetually supplied with moisture, and all waste and perspiration from the body prevented, preserve the powers of life from age to age ! centuries must have passed since they began to live in such a situation ; and had that situation continued, nothing appears but that they would have lived for many centuries yet to come."

" I was accustomed," says M. le Blonde, " to see a creole come, from time to time, to a house in which I lived, whose appearance indicated great poverty, as he walked bare-footed, and had his body covered with only a miserable shirt. His subsistence was earned by selling large frogs, which were in regular demand in the market of St. Pierre, and which he caught in the neighbouring woods, by torchlight. To hunt for frogs, in woods that had neither lakes nor rivers, was a strange mode of life ; especially in the case of a person whose friends were respectable, and had made several attempts to put him in a better situation. However, although he had lost half of one of his feet, in the pursuit of those reptiles, by the bite of a snake, he could not settle himself in any other line, being addicted to drinking, and incapable of submitting to the least restraint. His plan was to provide himself with several torches of a very light kind of wood : and between two and three o'clock in the morning, after the rain or fog had disappeared, to make his way into the forests, which were then in a moist state, in quest of the frogs that were scattered up and down. The appearance of the light made them leap, or run towards it, on which the creole seized the opportunity of striking them on the head with the flat side of his sabre, and threw them immediately into his sack. This sport is not a matter of great difficulty, but it is very dangerous, because snakes are also accustomed to run towards the light, and the adventurer is in great danger of being bitten, unless he succeeds in killing them by a lucky blow with the edge of his sabre. The creole had killed several in this man-

ner, for though they did not abound in forests so cold and damp as those in question, they are likely to be found with frogs, which they devour with great avidity.

“ The man being perfectly acquainted with the pitons, or conical elevations of the carbet (in Martinique), I proposed that he should serve me as a guide on an excursion thither. ‘ With all my heart,’ said he, ‘ provided that you lay in a good stock of taffia (liquor) we will set off to-morrow morning at day-break, for the distance is considerable; and although I am lame, I assure you that you will hardly be able to keep up with me.’ My landlord, smiling at the fatigue which I was about to undergo, in order to satisfy what appeared to him an idle curiosity, kindly prepared the necessary provisions, and gave me a negro to carry them. We started at the call of the frog-hunter, at break of day; and by seven o’clock, reached a part of the mountain, extremely steep and slippery; so that without holding by the branches, I could not stand on my feet. The creole with his cutlass went forward, cutting away obstructive branches to right and left, yet proceeded at a pace which I could scarcely sustain; the negro, with a large basket on his head, necessarily came at a slower pace, and on that account had to bear the abusive upbraidings of the impatient creole; who, however, soon became pacific, when apprized that if he hurried too much the poor fellow would fall and break the bottles. On my remarking that the trees, at this elevation, had not suffered from the late hurricane, my guide informed me, that the whirlwinds did not extend their rage so high. Our farther progress led to tracts in which the mud was half up the leg; we were now three thousand feet above the level of the sea, and the surrounding soil was a mere marsh. The creole, however, was indefatigable, and kept on his way singing, and taking from time to time a draught of his favourite liquor: an example which the negro and I were at last obliged to follow, in consequence of the cold and fatigue. We stopped to breakfast on a spot, on which the creole was in the habit of keeping a small stock of wood for fuel, and here he cooked five or six frogs, caught in the course of our morning’s walk. Having roasted them in due form on the embers, and seeing that I discovered no relish for them, he ate, with great composure, the hind legs, and gave the rest to the negro. After we had been some time on the mountain, clouds, and darkness, and

storm, rendered our situation dangerous and uncomfortable ; and in returning, we were obliged to descend backwards, as on a ladder, the creole going first, the negro last, and myself in the middle ; it being all the way as dark as night ; so that I met with many unlucky thumps against the stumps of trees in our descent ; reaching the plain, we found the heat excessive and exceedingly oppressive after the extreme cold we had experienced. Towards sun-set we reached home, covered with mud, and in a miserable condition ; ' Exactly,' said my landlord, ' as I told you, when I warned you of the inconveniencies of this strange excursion.' "

The BULL FROG

Is an inhabitant of the interior parts of America. They frequently measure from the nose to the hind feet a foot and a half, or upwards. They sit in pairs at the side of the springs, and make a croaking like the hoarse lowing of a bull. When frightened they make most enormous leaps. The American Indians are known to be excellent runners, being almost able to equal the best horse in its swiftest course. In order to try how well the bull frogs could leap, some Swedes laid a wager with a young Indian that he could not overtake one of them, provided it had two leaps beforehand. They carried a bull frog into a field, and burnt its tail. The fire, and the Indian, who endeavoured to outrun it, incited the animal to make its long leaps across the field as fast as possible. The Indian pursued it with all his might. The noise he made in running increased the terror of the frog, which redoubled its leaps, and it reached the pond, which was fixed upon as the goal, before the Indian could overtake it.

The GREEN TREE FROG.

As Captain Stedman was sailing up one of the rivers of Surinam in a canoe, an officer who was with him observed in the top of a mangrove tree a battle between a snake and a tree frog. When the captain first perceived these animals, the head and shoulders of the frog were in the jaws of the snake, which was about the size of a large kitchen poker. This creature had its tail twisted round

a tough branch of the tree, and the frog, which appeared about the size of a man's fist, had laid hold of a twig with its hind feet. They continued in this situation for some time. At length, the jaws of the snake gradually relaxing, and by their elasticity forming an incredible orifice, the body and fore legs of the frog, by degrees, disappeared, till finally nothing more was visible than the hinder feet and claws, which were at last disengaged from the twig, and the poor creature was swallowed whole. He passed some inches down the alimentary canal, and there stuck, forming a knob or knot at least six times as thick as the snake, whose jaws and throat immediately contracted, and resumed their natural shape.

The TOAD.

MR. FOTHERGILL, in a letter to Dr. Sims, F. L. S., relates the following curious particulars of the toad :—

“ The common food of the toad is small worms and insects of every description ; but its favourite food consists of bees and wasps. When a toad strikes any of these insects, deglutition does not immediately take place, as in other cases, but the mandibles remain closely compressed for a few seconds, in which time the bee or wasp is killed, and all danger of being stung is avoided. The mandibles are provided with two protuberances, which appear to be destined for this office. Although capable of sustaining long abstinence, the toad is a voracious feeder when opportunity offers. To a middle-sized one the writer has given nine wasps, one immediately after another ; the tenth it refused, but in the afternoon of the same day it took eight more. To see the toad display its full energy of character, it is necessary to discover it in its place of retirement for the day, and, if possible, unperceived, to drop an insect within its sight : it immediately arouses from its apparent torpor, its beautiful eyes sparkle, it moves with alacrity to its prey, and assumes a degree of animation incompatible with its general sluggish appearance. When arrived at a proper distance it makes a full stop, and, in the attitude of a pointer, motionless, eyes its destined victim for a few seconds, when it darts out its tongue upon it, and lodges it in its throat with a velocity which the eye can scarcely follow. It sometimes happens to make an ineffectual stroke, and stuns the insect

without gorging it, but never makes a second stroke until the insect resumes its motion. It uniformly refuses to feed on dead insects, however recent. For several years a toad took up its abode, during the summer season, under an inverted garden-pot, which had a part of its rim broken out, in the writer's garden, making its first appearance in the latter end of May, and retreating about the middle of September. This toad, there is reason to believe, distinguished the persons of the family, who daily fed it, from strangers, as it would permit them to pat and stroke it. To try the indiscriminating appetite of these animals, the writer has dropped before a full-grown toad a young one of its own species, about three-fourths of an inch long, and the instant it began to move off, it was eagerly struck at and swallowed; but the writer, in repeating this experiment, found that more will refuse than devour the young of their own species. When living minnows (*Cyprinus Phoxinus*) were dropped before a toad, they were struck at and swallowed in the same manner. These experiments were made on toads at full liberty, and met with accidentally. Toads generally return to their winter-quarters about the time that swallows disappear. The writer, on such occasions, has seen them burrowing in the ground backwards, by the alternate motion of their hind legs."

The ALLIGATOR

, DIFFERS from the crocodile principally in being more smooth on the upper part of the head, and in the snout being much wider and flatter, and rounder at the end. It grows to the length of eighteen feet, and abounds particularly in the torrid zone; but it is found so far north as the river Neus in North Carolina. It is met with both in the fresh and salt parts of rivers, and amidst the reeds along the banks; lurking in ambush for its prey, and seizing upon dogs and cattle within the reach of its fatal bound. Alligators are equally formidable in their appearance and ferocious in their dispositions, seizing both man and beast with almost indiscriminate voracity, and pulling them to the bottom to lessen their means of resistance and devour them with less interruption. By the close union of the vertebræ this animal can proceed with celerity only in a straight forward direction, so that the intended

victims pursued by them are enabled to elude this destination by lateral and cross movements. But though the alligator is deficient in flexibility, it supplies this defect in a great degree by sagacity or cunning, and appearing on the surface of the water like the stock of a tree, thus attracts the various animals within its grasp. Fowls, fishes, and turtle, all are drawn, whether by curiosity or for convenience, towards this object, supposed completely harmless, but from which the jaws of destruction are instantly opened to devour them. Alligators are said to swallow stones and various other substances incapable of affording nourishment, merely to prevent the contraction of their intestines, and thus allay their hunger; and Catesby observes, that on opening a great number, he has seen nothing but clumps of light wood and pieces of pine-tree coal (in one instance a piece of the weight of eight pounds), worn by attrition to a surface perfectly smooth, implying that they had long remained in their bodies. Their eggs are deposited on the banks of rivers, sometimes in a nest composed of vegetables with considerable care, and are hatched by the sun; and the young ones are not only devoured by fishes and birds, but become the victims often of their own voracious species. In Carolina they seldom attack men or large cattle, but are formidable enemies to hogs. From October to March they continue in the sequestered caverns of the river banks in a state of torpor, re-appearing in the spring with the most violent and terrific noises. Some parts of them are used by the Indians for food, and the flesh is of an attractive whiteness, but has a very strong flavour of musk. The growth of this animal, and of the crocodile, is extremely slow, and both are imagined to be long-lived.

A medical officer many years in the East Indies, where these animals are very numerous, states that a native, being employed in the repairs of a ship lying in the Bengal river, carelessly put his legs off the stage upon which he was seated at the side of the vessel, and being engaged in conversation with his wife and child (who were on the deck) forgot the danger of his situation; as he proceeded in his labours, it was necessary to lower the stage until it came within a few feet of the surface of the water. He had not placed himself thus many minutes, when an immense alligator rose suddenly from the river; and ere the man perceived it, seized one of his legs, and snapped it off from the knee, with which he immediately descended. The

poor man in vain now attempted to get on board the ship ; the pain, the terror, the loss of his limb, so entirely bereft him of strength, that all his efforts were rendered futile. The wife hung terror-struck over the side of the vessel, not knowing what to do, calling for assistance, and shrieking distractedly ; the boy clung to his father, and endeavoured with all his little strength to lift him up. The cries of the woman at length brought some persons to ascertain the cause. At this moment the horror of their situation was heightened by the re-appearance of the insatiate monster: they redoubled their efforts to drag him from the jaws of his impending fate, but with as little success as before ; to their joy they now perceived people coming on board, brought by the incessant cries of the distressed mother and son. Some of them threw stones, sticks, or any thing that happened to be in their way, while the wife, thinking her husband's deliverance certain, hastened to shore for surgical assistance. As the creature advanced, the cries of the child became truly piercing, he seemed convulsed with terror, and increased his exertions to pull his father on board, loudly calling for assistance. But either through surprise or fear, his cries were unheeded. Still continuing to pelt the creature off, from anguish and loss of blood, the sufferer was by this time exhausted, and the strength of the youth would scarcely support the almost inanimate body, and the alligator seized the remaining leg. The boy still kept his hold, and contrived to throw a rope round the body of his nearly expiring parent, so as to prevent him from being pulled into the river. At this instant the wife returned with the surgeon ; but alas ! they came to late—the poor Indian recognized his wife—gave one parting look, then sunk in death on the bosom of his child.

Mr. Waterton, after many endeavours, at last succeeded in taking an alligator, or cayman, alive. We give the account of the adventure in his own words :—

“ About half-past five in the morning the Indian stole off silently to take a look at the bait ; on arriving at the place he set up a tremendous shout. We all jumped out of our hammocks, and ran to him. The Indians got there before me, for they had no clothes to put on, and I lost two minutes in looking for my trousers, and in slipping into them.

“ We found a cayman, ten feet and a half long, fast to the end of the rope. Nothing now remained to do, but

to get him out of the water without injuring his scales. *Hoc opus, hic labor.* We mustered strong: there were three Indians from the creek; there was my own Indian Yan, Daddy Quashi, the negro from Mrs. Peterson's, James, Mr. R. Edmonstone's man, whom I was instructing to preserve birds, and lastly, myself.

"I informed the Indians that it was my intention to draw him quietly out of the water, and there secure him. They looked and stared at each other, and said, I might do it myself; but they would have no hand in it; the cayman would worry some of us. On saying this, 'consedere duces,' they squatted on their hams with the most perfect indifference.

"The Indians of these wilds have never been subject to the least restraint; and I knew enough of them to be aware, that if I tried to force them against their will they would take off, and leave me and my presents unheeded and never return.

"Daddy Quashi was for applying to our guns, as usual, considering them our best and safest friends. I immediately offered to knock him down for his cowardice, and he shrunk back, begging that I would be cautious, and not get myself worried; and apologizing for his own want of resolution. My Indian was now in conversation with the others, and they asked if I could allow them to shoot a dozen arrows, and thus disable him. This would have ruined all. I had come above three hundred miles on purpose to get a cayman uninjured, and not to carry back a mutilated specimen. I rejected their proposition with firmness, and darted a disdainful eye upon the Indians.

"Daddy Quashi was again beginning to remonstrate, and I chased him on the sandbank for a quarter of a mile. He told me afterwards, he thought he should have dropped down dead with fright, for he was firmly persuaded, if I had caught him, I should have bundled him into the cayman's jaws. Here then we stood, in silence, like a calm before a thunder-storm. '*Hoc res sumna loco. Scinditur in contraria vulgus.*' They wanted to kill him, and I wanted to take him alive.

"I now walked up and down the sand, resolving a dozen projects in my head. The canoe was at a considerable distance, and I ordered the people to bring it round to the place where we were. The mast was eight feet long, and not much thicker than my wrist. I took it

off the canoe, and wrapped the sail round the end of it. Now it appeared clear to me, that if I went down upon one knee, and held the mast in the same position as the soldier holds his bayonet, when rushing to the charge, I could force it down the cayman's throat, should he come open mouthed at me. When this was told to the Indians, they brightened up, and said they would help me to pull him out of the river.

"Brave squad ! said I to myself, 'audax omnia perpeti,' now that you have got me betwixt yourselves and danger. I then mustered all hands for the last time before the battle. We were, four South American savages, two negroes from Africa, a creole from Trinidad, and myself a white man from Yorkshire. In fact, a little tower of Babel group, in dress, no dress, address, and language.

"Daddy Quashi hung in the rear ; I showed him a large Spanish knife, which I always carried in the waistband of my trowsers ; it spoke volumes to him, and he shrugged up his shoulders in absolute despair. The sun was just peeping over the high forests on the eastern hills, as if coming to look on, and bid us act with becoming fortitude. I placed all the people at the end of the rope, and ordered them to pull till the cayman appeared on the surface of the water : and then, should he plunge, to slacken the rope, and let him go into the deep.

"I now took the mast of the canoe in my hand (the sail being tied round the end of the mast), and sunk down upon one knee, about four yards from the water's edge, determining to thrust it down his throat, in case he gave me an opportunity. I certainly felt somewhat uncomfortable in this situation, and I thought of Cerberus on the other side of the Styx Ferry. The people pulled the cayman to the surface ; he plunged furiously as soon as he arrived in these upper regions, and immediately went below again, on their slackening the ropes. I saw enough not to fall in love at first sight. I now told them we would run all risks, and have him on land immediately. They pulled again, and out he came—"monstrum, horrendum, informe." This was an interesting moment. I kept my position firmly, with my eye fixed steadfastly on him.

"By the time the cayman was within two yards of me, I saw he was in a state of fear and perturbation ; I instantly dropped the mast, sprung up, and jumped on his back, turning half round as I vaulted, so that I gained

my seat with my face in a right position. I immediately seized his fore legs, and by main force twisted them on his back; thus they served me for a bridle.

"He now seemed to have recovered from his surprise, and probably fancying himself in hostile company, he began to plunge furiously, and lashed the sand with his long and powerful tail. I was out of reach of the strokes of it, by being near his head. He continued to plunge and strike, and made my seat very uncomfortable. It must have been a fine sight for an unoccupied observer.

"The people roared in triumph, and were so vociferous, that it was some time before they heard me tell them to pull me and my beast of burden farther in land. I was apprehensive the rope might break, and then there would have been every chance of going down to the regions under water with the cayman. That would have been more perilous than Arion's marine morning ride:—

"*Delphini insidens vada cœrula sedet Arion.*"

"The people now dragged us above forty yards on the sand; it was the first and last time I was ever on a cayman's back. Should it be asked how I managed to keep my seat, I would answer—I hunted some years with Lord Darlington's fox-hounds.

"After repeated attempts to gain his liberty, the cayman gave in, and became tranquil through exhaustion. I now managed to tie up his jaws, and firmly secured his fore feet in the position I had held them. We had now another severe struggle for superiority, but he was soon overcome, and again remained quiet. While some of the people were pressing upon his head and shoulders, I threw myself on his tail, and by keeping it down to the sand, prevented him from kicking up more dust. He was finally conveyed to the canoe, and then to the place where we had suspended our hammocks. There I cut his throat: and after breakfast was over, commenced the dissection."

A short time before M. Navarette was at Marseilles, he was told that, as a young woman was washing her feet in one of the rivers, an alligator seized and carried her off. Her husband, to whom she had been but that morning married, hearing her screams, threw himself headlong into the water, and, with a dagger in his hand, pursued the animal. He succeeded in recovering his wife, but she died before she could be brought to shore.

The alligators about the bay of Campeachy are not so formidable as in most other places. Dampier and some of his men were one day passing through a swamp, two or three feet deep in water, when they perceived the strong musky smell of an alligator. Presently after he stumbled over one of these animals and fell down. He called out loudly to his companions for assistance, but they ran off as fast as their legs could carry them, towards the woods. He had no sooner recovered, than he tumbled over the animal a second, and afterwards a third time; but at last he got off in safety. This adventure had, however, such an effect upon him, that he never again went through any extensive water, whilst he remained in the Bay of Campeachy.

The CROCODILE.

HERODOTUS, the historian, in noticing the crocodile, says:—"When the crocodile feeds in the Nile, the inside of his mouth is always covered with *bdella*" (a term which the translators have improperly rendered by that of leech.) "All birds, except one, fly from the crocodile, but this one bird, the trochilos, on the contrary, flies towards him with the greatest eagerness, and renders him a very great service; for every time that the crocodile comes to the land to sleep, and when he lies stretched out with his jaws open, the trochilos enters and establishes itself in his mouth, and frees him from the *bdella* which he finds there. The crocodile is grateful, and never does any harm to the little bird who performs for him this good office." M. Geoffry St. Hilaire, in a paper recently communicated to the Academy of Sciences, demonstrates decidedly the correctness of this description of Herodotus, which many authors have regarded as fabulous; he says, "that this bird is seen every where on the banks of the Nile; and M. Geoffry having succeeded in procuring one, recognised it as belonging to a species already described by Hasselquist, under the name of *Charadrius Egyptius*. There is in France a bird very like it, if not precisely the same—namely, the small ringed plover. When the crocodile reposes on the land, he is attacked by innumerable swarms of insects. His mouth is not so hermetically sealed as to prevent them from introducing themselves; and they penetrate in such vast numbers, that the inner surface of his palate, which is naturally of

a bright yellow, appears to be covered with a brownish-black crust. All these sucking insects drive their stings into the orifice of the glands, which are numerous in the mouth of the crocodile. It is then that the little plover, who follows him every where, comes to his succour, and delivers him from these troublesome enemies; and that without any danger to himself, for the crocodile is always careful when he is going to shut his mouth to make some motion which warns the little bird to fly away. At St. Domingo there is a crocodile which so nearly resembles those of Egypt, that M. Geoffry could not distinguish them without great difficulty. This crocodile is also attacked by the gnats, from which he would have no means of delivering himself (his tongue like that of the Nile being fixed) if a bird of a particular species did not give him the same assistance that the crocodile of the Nile receives from the little plover."

The LIZARD.

IN July, 1822, the wife of the man who superintends the decoy ponds in the parish of Great Oakley, near Harwich, took an egg from an hen's nest, in which was a remarkable discolouration. She kept it about a week, and, upon breaking it, observed something within alive, which so alarmed her, that she let it fall, and ran for her husband, who was close by and immediately came, and found lying on the ground, surrounded with the contents of the egg, an animal of the lizard species alive, but incapable, from weakness, of getting away. The contents of the egg were fœtid, contained a very small portion of yolk, and with the albumen not more than sufficient to half fill the shell. The animal proved to be a land swift, speckled belly, about four inches in length, nothing remarkable in its form, except its hind legs being longer than usual. It died shortly after being taken out of the egg. The man has it dried for the inspection of the curious.

The CHAMELEON.

"THE greatest curiosity in Concan," says Forbes, in his *Oriental Memoirs*, "is the Chameleon (*lacerta Chameleon*, Linnæus), found in every thicket. I kept one for several weeks; of which, as it differed in many re-

spects from those described in Arabia and other places, I shall mention a few particulars : The chameleon of Concan, including the tail, is about nine inches long ; the body only half that length, varying in circumference, as it is more or less inflated ; the head, like that of a fish, is immoveably fixed to the shoulders ; but every inconvenience is removed by the structure of the eyes ; which, like spheres rolling on an invisible axis, are placed in deep cavities, projecting from the head : through a small perforation in the exterior convexity appears a bright pupil, surrounded by a yellow iris ; which, by a singular formation and motion of the eye, enables the animal to see what passes before, behind, or on either side ; and it can give one eye all these motions, while the other remains perfectly still : a hard rising protects these delicate organs ; another extends from the forehead to the nostrils ; the mouth is large, and furnished with teeth ; with a tongue half the length of the body, and hollow like an elephant's trunk ; it darts nimbly at flies and other insects, which it seems to prefer to the aerial food generally supposed to be its sustenance. The legs are longer than usual in the lacerta genus ; on the fore feet are three toes nearest the body, and two without ; the hinder exactly the reverse ; with these claws it clings fast to the branches, to which it sometimes entwines itself by the tail, and remains suspended : the skin is granulated like shagreen, except a range of hard excrescences, or denticulations, on the ridge of the back, which are always of the same colour as the body ; whereas a row of similar projections beneath continue perfectly white, notwithstanding any metamorphosis of the animal.

“ The general colour of the chameleon so long in my possession was a pleasant green, spotted with pale blue : from this it changed to a bright yellow, dark olive, and a dull green ; but never appeared to such advantage as when irritated, or a dog approached it ; the body was then considerably inflated, and the skin clouded like tortoiseshell, in shades of yellow, orange, green, and black ; a black object always caused an almost instantaneous transformation : the room appropriated for its accommodation was skirted by a board painted black : this the chameleon carefully avoided ; but if he accidentally drew near to it, or we placed a black hat in his way, he was reduced to a hideous skeleton, and from the most lively tints became black as jet : on removing the cause, the effect as suddenly ceased ; the sable hue was succeeded by a brilliant colouring, and the body was again inflated.”

"Whenever I kept my chameleons," says Mr. Golberry, "confined in a cage, and there plagued and tormented them, I always succeeded in exciting a degree of irritation and anger, which they manifested by respiring the air so strongly, as to be heard: they likewise became thin, and their colour became dull. If I continued to disquiet them, the dull green changed to a yellow tinge; then to yellow, spotted with red; next to a yellow-brown, spotted with red-brown; then a grey-brown, spotted with black; and, at last became almost black, and more and more thin. These are the only colours which I could succeed in making them assume. After having thus tormented and kept them prisoners during a number of days, I set them free. I carried them to a tree, or into the grass: and however black and meagre they were, they quickly assumed their green colour and their usual state.

"Reiterated experiments have therefore convinced me that the chameleon, in a state of perfect liberty, is always fat, and of a green hue; and that, in a state of captivity, not only its colour becomes changed, but its health is also affected. I have often wrapped my chameleons up in white, red, blue, violet, green, and yellow stuffs, and left them thus for whole days together: at the end of which, when I visited my poor captives, I found them neither white, red, blue, violet, yellow, nor a fine green: but on the contrary, always of that yellow-green, that tarnished yellow, or that grey-black, which the former assume, when in distress and suffering."

SERPENTS.

The RATTLE-SNAKE.

WE are told, by an intelligent American writer, that a farmer was one day mowing with his negroes, when he accidentally trod on a rattle-snake, that immediately turned upon him, and bit his boot. At night, when he went to bed, he was attacked with sickness: he swelled, and before a physician could be called in, he died. A few days afterwards one of the sons put on his father's boots, and, at night, when he pulled them off, he was seized

with the same symptoms, and died on the following morning. The medical man arrived, but, unable to divine the cause of so singular a disorder, he seriously pronounced both the father and the son to have been bewitched. At the sale of the effects a neighbour purchased the boots, and upon putting them on experienced the like dreadful symptoms with the father and son. A skilful physician, however, who had heard of the preceding affair, being sent for, suspected the cause, and, by applying proper remedies, recovered his patient. The fatal boots were now carefully examined, and the two fangs of the snake were discovered to have been left in the leather, with the poison-bladders adhering to them. They had penetrated entirely through, and all the wearers had imperceptibly scratched themselves with their points in pulling off the boots.

The rattle-snake is a viviparous animal, and is said to practise the same extraordinary mode of preserving its young from danger, as is ascribed to the viper in Europe; that is, by receiving them into its mouth and swallowing them. M. de Beauvois, in the relation of his travels, declares that he was himself an eye-witness of this process. Happening, in his walk, to disturb a large rattle-snake, the creature immediately coiled itself up, opened its jaws, and instantly five small ones, which were lying near it, rushed into its mouth. He retired, and watched the snake, and in a quarter of an hour saw her again discharge them. He then approached a second time, when the young retired into its mouth with greater celerity than before, and the snake immediately moved off among the grass, and escaped.

The rattle-snake is reported to possess in an eminent degree the power of fascinating its prey. The following instance of this faculty is contained in a letter signed *Caroliniensis*, in the New York Columbian.

“A friend in South Carolina, to whom I was on a visit, invited me to a morning walk round his plantation, and recommended our fowling-pieces as companions. The day proved to be very sultry; and, while my friend proceeded to give some direction to a gang of his negroes at a distance, he advised me to take the benefit of a shade formed by a wood adjoining the field in which we then were. I took the hint; and, while leaning on the fence (which was constructed on a bank between two dry ditches), I was alarmed by the rattle of a snake very near

me. I instantly sprung on the top of the rail of the fence, and the next moment discovered the monster in one of the ditches, within ten feet of the spot where I was seated. As I levelled my gun at his head, and was in the act of pulling the trigger, his tail ceased to vibrate. Conscious, from his position, that I was not the object of his regard, and that I was in no danger from him, and confident that I could destroy him at any moment I pleased, I sat still to observe his further movements. As his eyes seemed to be rivetted to a particular spot, I followed their direction, and discovered a wood-rat. At the moment of my first seeing this little animal, he was rising from a crouching posture, and endeavouring to retire by a retrograde movement. This attempt was immediately followed by a second tremendous exercise of the rattle, and the rat again sunk to the ground. I witnessed several repetitions of this operation, and the result was, that at length the rat appeared perfectly exhausted; the snake advanced towards his prey, and was in the act of taking it into his mouth, when I discharged my two barrels at his head, and killed him on the spot. Whether any of the pellets struck the rat, I am unable to say; but, after the closest search, we could detect no mark of violence about his body, and he was dead when I took him up.

"Some years after the foregoing circumstance had taken place, as I was accompanying a lady to church in a gig, we were alarmed by the rattle of a snake on the road side. After I had tranquillized the horse, and prevailed on the lady to hold the reins, I returned to the spot from whence the noise seemed to issue, and soon discovered the object of our alarm. The monster was lying in a coil, ready to strike, but manifested no concern at my approach. Having armed myself with a long fence rail, I was in the act of crushing his head, when I saw a rabbit in the very same posture and condition which the rat had exhibited. The fall of my weapon disabled the snake, and I soon dispatched him. The rabbit I took into my hands, without an effort on its part to resist or escape, and deposited it in my companion's lap; but it died before we reached the church. I am confident that the animal sustained no bodily injury either from the snake or myself."

A remarkable instance of the fascinating power of snakes is given in Lichtenstein's Travels in Southern Africa. "In rambling in the fields near Cape Town he saw, at the

brink of a ditch, a large snake in pursuit of a field mouse. The poor animal was just at its hole, when it seemed in a moment to stop, as if unable to proceed; and, without being touched by the snake, to be palsied with terror, the snake had raised its head over him, had opened its mouth, and seemed to fix its eyes steadfastly upon him. Both remained still awhile; but as soon as the mouse made a motion, as if to fly, the head of the snake instantly followed the movement, as if to stop his way. This sport lasted four or five minutes, till the author's approach put an end to it: the snake then snapped up his prey hastily, and glided away with it into a neighbouring bush. "As I had," he observes, "heard a great deal of this magic power in the snake over smaller animals, it was very interesting to me to see a specimen of it. I think it may be made a question, however, whether the poisonous breath of the reptile might not really have had the effect of paralysing the limbs of the mouse, rather than that its inability to move proceeded either from the fixed eye of the snake, or the apprehension of inevitable death. It is remarkable, and very certain, that serpents will sport with their prey, as cats do, before they kill it."

This author notices several peculiarities of the snakes of South Africa. A very rare description of serpent is there called the spurting snake. It is from three to four feet long, of a black colour, and has the singular property, as the colonists assert, that, when it is attacked, it spurts out its venom, and knows how to give it such a direction as to hit the eyes of the person making the attack. This is followed by violent pain, and by so great an inflammation, that it frequently occasions the entire loss of sight. The pof-adder, one of the most poisonous species, is distinguishable by a disproportionate thickness, and by a body handsomely spotted, with black and white spots on a brownish ground. It has this peculiarity, that, when it is enraged, it swells out its neck to a very great size. One which was caught measured in length about an ell and a half, and was about six inches round in its greatest circumference. One of the species, called the tree snake, was caught while in the act of climbing up the wall of a farm-house, to take the swallows which had their nests under the roof. This snake is extremely adroit at climbing, and is, therefore, a terrible enemy to small birds. Its bite is extremely venomous, and is considered mortal. The one here noticed measured six feet in length, with a

black back and greyish belly. In the belly were found six half-digested young swallows. The lemon snake measures about five feet in length, its skin being a fine lemon colour, regularly spotted with black.

The Boa.

AMONG serpents, the genus *boa* is distinguished by its vast and almost unlimited size, as well as by its prodigious strength, which enables it to destroy cattle, deer, &c. by twisting around them in such a manner, as to crush them to death by continued pressure. It also claims a superiority over other serpents by the beauty of its colours, and the peculiar disposition of its variegations. The entire ground colour of this animal in the younger specimens, is a yellowish grey, and sometimes a bright yellow, on which is disposed, along the whole length of the back, a series of large, chain-like, reddish brown, and sometimes perfectly red variegations, leaving large open spaces of the ground colour at regular intervals. The largest or principal marks, composing the above chain-like pattern, are of a squarish form, accompanied on their exterior sides by large triangular spots, with their points directed downward. Between these larger marks are disposed many smaller ones, of uncertain forms, and more or less numerous in different parts. The ground colour itself is also scattered over by many small specks, of the same colour with the variegations. The exterior edges of all the larger spots and markings are commonly blackish, or of a much deeper cast than the middle part, and the ground colour immediately accompanying the outward edges of the spots is, on the contrary, lighter than on the other parts, or even whitish, thus constituting a general richness of pattern, of which nothing but an actual view of a highly-coloured specimen of the animal itself can convey a complete idea. In larger specimens the yellow tinge is often lost in an uniform grey cast, and the red tinge of the variegations sinks into a deep chesnut: in some instances the general regularity of the pattern, as above described, is disturbed by a kind of confluent appearance. The head is invariably marked above by a large longitudinal dark band, and by a narrower lateral band passing across the eyes, towards the neck.

A gentleman, who had some extensive mercantile concerns in America, informs us, that he one day sent out a

soldier, with an Indian, to kill some wild fowl. In pursuing their game, the Indian, who generally went before, sat down upon what he supposed to be the fallen trunk of a tree. But the monster beginning to move, the poor fellow perceived what it was that he had thus approached, and dropped down in an agony. The soldier, who at some distance saw what had happened, levelled his piece at the serpent's head, and shot it dead; then going up to the relief of his companion, found that he was also dead from fright. The boa measured thirty-six feet; the skin was stuffed, and sent to the cabinet of the prince of Orange.

"There are three species of boa," says M. Lavaysse, in his *Description of Venezuela*: "I saw one of from fifteen to nineteen feet in length; and some have been seen, on the continent of America, of forty-five feet long. That which is most remarkable in this gigantic reptile is, the manner in which it devours the fowls and quadrupeds that fall, as it may be said, into his sphere of enchantment. When a hen, pintada, paca, or fawn, passes near the boa, the bird or animal is immediately seized with convulsions; it ruffles its feathers, or bristles its hair, and stands still, without attempting to fly, until the slow and enormous reptile seizes it by the head. The serpent then emits a whitish and viscous slime on the body of its victim, and swallows it slowly at its leisure. If the prey be somewhat large, the monster doubles itself up, contracts its length, and becomes the thicker as it is full. It is then obliged to repose, to digest the food; or, rather, because it is too full to be able to move or crawl. When in this state, a child, who was not frightened at its hideous appearance, might kill it with a stick, or cut it in pieces with a sword, as I have seen done by the young Indians and negroes, who would on such occasions appear delighted at vanquishing the monster."

Some idea may be formed of the Anaconda, or boa constrictor, from M'Leod's narrative of one which was caught a few years since in Borneo, and was embarked at Batavia on board the ship *Cæsar*, the vessel which carried home the officers and crew of the British frigate *Alceste*, after her shipwreck in the straits of Gaspar. Mr. M'Leod was surgeon of the *Alceste*, and was an eye-witness of what he here relates.

"He was brought on board in a wooden crib or cage, the bars of which were sufficiently close to prevent his escape; and it had a sliding door, for the purpose of

admitting the articles on which he was to subsist; the dimensions of the crib were about four feet high, and about five feet square, a space sufficiently large to allow him to coil himself round with ease. The live stock for his use during the passage, consisting of six goats of the ordinary size, were sent with him on board, five being considered as a fair allowance for as many months. At an early period of the voyage we had an exhibition of his talent in the way of eating, which was publicly performed on the quarter-deck, upon which he was brought. The sliding-door being opened, one of the goats was thrust in, and the door of the cage shut. The poor goat, as if instantly aware of all the horrors of its perilous situation, immediately began to utter the most piercing and distressing cries, butting instinctively, at the same time, with its head towards the serpent, in self-defence.

“The snake, which at first appeared scarcely to notice the poor animal, soon began to stir a little, and, turning his head in the direction of the goat, it at length fixed a deadly and malignant eye on the trembling victim, whose agony and terror seemed to increase; for previous to the snake seizing its prey, it shook in every limb, but still continuing its unavailing show of attack, by butting at the serpent, who now became sufficiently animated to prepare for the banquet. The first operation was that of darting out his forked tongue, and at the same time rearing a little his head; then suddenly seizing the goat by the fore leg with his mouth, and throwing him down, he was encircled in an instant in its horrid folds. So quick, indeed, and so instantaneous was the act, that it was impossible for the eye to follow the rapid convolution of his elongated body. It was not a regular screw-like turn that was formed, but resembling rather a knot, one part of the body overlaying the other, as if to add weight to the muscular pressure, the more effectually to crush his object. During this time he continued to grasp with his mouth, though it appeared an unnecessary precaution, that part of the animal which he had first seized. The poor goat, in the mean time, continued its feeble and half-stifled cries for some minutes, but they soon became more and more faint, and at last it expired. The snake, however, retained it for a considerable time in its grasp after it was apparently motionless. He then began slowly and cautiously to unfold himself, till the goat fell dead from his monstrous embrace, when he began to prepare himself for the

feast. Placing his mouth in front of the head of the dead animal, he commenced by lubricating with his saliva that part of the goat; and then taking its muzzle into his mouth, which had, and indeed always has, the appearance of a raw lacerated wound, he sucked it in as far as the horns would allow. These protuberances opposed some little difficulty, not so much from their extent as from their points; however, they also in a very short time disappeared, that is to say, externally, but their progress was still to be traced very distinctly on the outside, threatening every moment to protrude through the skin. The victim had now descended as far as the shoulders; and it was an astonishing sight to observe the extraordinary action of the snake's muscles when stretched to such an unnatural extent, an extent which must have utterly destroyed all muscular power in any animal that was not, like itself, endowed with very peculiar faculties of expansion and action at the same time. When his head and neck had no other appearance than that of a serpent's skin, stuffed almost to bursting, still the workings of the muscles were evident, and his power of suction, as it is erroneously called, unabated; it was, in fact, the effect of a contractile muscular power, assisted by two rows of strong hooked teeth. With all this he must be so formed as to be able to suspend, for a time, his respiration, for it is impossible to conceive that the process of breathing could be carried on while the mouth and throat were so completely stuffed and expanded by the body of the goat, and the lungs themselves (admitting the trachea to be ever so hard) compressed, as they must have been, by its passage downwards.

“The whole operation of completely gorging the goat, occupied about two hours and twenty minutes; at the end of which time the tumefaction was confined to the middle part of the body, or stomach, the superior parts, which had been so much distended, having resumed their natural dimensions. He now coiled himself up again, and laid quietly in his usual torpid state for about three weeks or a month, when his last meal appearing to be completely digested and dissolved, he was presented with another goat which he devoured with equal facility. It would appear, that almost all he swallows is converted into nutrition, for a small quantity of calcareous matter (and that, perhaps, not a tenth part of the bones of the animal) with occasionally some of the hairs, seemed to compose

his general fæces; and this may account for these animals being able to remain so long without a supply of food. He had more difficulty in killing a fowl than a larger animal, the former being too small for his grasp.

"As we approached the Cape of Good Hope, this animal began to droop, as was then supposed from the increasing coldness of the weather (which may probably have had its influence), and he refused to kill some fowls which were offered to him. Between the Cape and St. Helena he was found dead in his cage, and, on dissection, the coats of his stomach were discovered to be excoriated, and perforated by worms. Nothing remained of the goat except one of the horns, every other part being dissolved."

When Captain Steadman was on board one of his boats on the river Cottica, in Surinam, he was informed, by one of his slaves, that a large snake was lying among the brush-wood on the beach, not far distance; and, after some persuasion, he was induced to land, in order to shoot it. At the first shot the ball, missing the head, went through the body: when the animal struck round, and with such astonishing force, as to cut away, with the facility of a scythe mowing grass, all the underwood around; and by flouncing his tail, caused the mud and dirt in which he lay to fly to a considerable distance over the heads of the men that were with him. They started back some way, but the snake was quiet again in a few minutes. Captain Stedman again fired, but with no better success than before; and the animal sent up such a cloud of dust and dirt, as he had never seen but in a whirlwind; this caused them once more suddenly to retreat. After some persuasions, he was induced, though much against his inclination, being exceedingly weak from illness, to make a third attempt. Having, therefore, once more discovered the snake, they discharged their pieces at once, and shot him through the head. They contrived, whilst yet alive, to get a noose round his neck, by which they dragged him to the beach, tied him to the stern of the boat, and dragged him along, swimming all the while like an eel. His length was more than twenty-two feet.

The CEYLON SERPENT.

"THE forests of Ceylon," says a recent Dutch traveller in that country, from whose highly interesting work we

have extracted the following story, "have almost always something in them so inexpressibly great and majestic as instantly fills the soul with astonishment and admiration.

"Trees are there of a prodigious height and thickness, that appear to have outlived several ages, and whose closely interwoven leaves form an impenetrable shade, and afford a pleasant and refreshing coolness.

"How beautiful is nature when she shows herself in all her magnificence, or in all her simplicity, and without the misplaced additions and changes of art! She has then something so attractive, something so perfectly congenial to the original state of our senses and our soul, that I have often felt an irresistible desire to spend my days in these terrestrial paradises—the forests of Ceylon.

"I have travelled," says he, "in many forests, and traversed many woods in various countries, but I have never seen one that can in any degree be compared to those of this island; there, when the sun shoots his burning rays, only a trembling and coloured light can be perceived. The loss of my companion," continues he, "who was killed by an alligator, induced me to think of returning to Chilaw. I did not long hesitate about the road I should take; to return through the wilderness by the way we had come was, in my present forlorn situation, to expose myself to certain destruction: I shuddered at the recollection of the dangers we had encountered in our approach to the Bocaul Mountains; I therefore resolved to proceed along the banks of a canal or ditch; upwards of thirty feet wide, in the hope of finding its source, as it was impossible to ford it, in consequence of the immense quantity of weeds, bushes, and brambles. Following the bed of the river, I continued my solitary way, much depressed in spirits at the unhappy fate of my too-venturous companion, until I arrived at the foot of a steep rock, about sixty feet high, and as smooth as a wall, rising like an insurmountable barrier across my path. I looked anxiously about for some time, but no passage or opening appeared. At this frightful prospect, my strength gave way—I sunk down upon the earth; in this state I remained for some time, almost bereft of reason at my hopeless situation, until I began to reflect that this despair only exhausted my remaining strength, and rendered me incapable of any exertion to clamber over the rock. I then got up to examine the place more closely, and found my situation as dreadful as the mind can form an idea of.

On the left was the canal, whose banks, from the elevation of ground, had become extremely steep and high; and its bed still seemed one solid mass of weeds, thorns, and brambles; before me was the rock, which on one side overhung a fearful abyss, and on the other extended far into an impenetrable wood, thus completely shutting in the small space that lay between them; there were, it is true, at distances, clefts or holes in the rock, but the idea of hanging over this gulph, into which the least false step would have plunged me, and dashed me in a moment to atoms, deterred me; besides, I should have been obliged to leave my gun and provisions (the only sources of existence at such a distance from any habitation), behind me, had I ventured upon the undertaking.

"There remained, therefore, no other alternative than to follow the direction of the rock into the forest, and get round it if possible, or find a place where it was less steep, or the summit more easily attainable; but the mass of thorns, &c. prevented an easy advance.

"Struggling with disappointment and vexation, I had proceeded about fifty yards along the edge of the wood, when I had the satisfaction to perceive a small opening, through which, with much difficulty, I penetrated into the wood. Scarcely had I entered it, when I heard a loud hissing and uncommon motion in a large tree that stood some paces from me; with all the speed terror would permit, I flew towards the rock, dropping my gun and provisions in my fright; before I reached the base of the rock, my ears were again assailed with the same hissing, but louder. In dreadful anticipation of the worst, I looked round, when I saw a monstrous serpent, of enormous size, crawling slowly out of the opening. I had just entered but a few moments. At this sight the earth seemed to open under my feet: I uttered a horrible yell, and my courage and my hope instantly forsaking me, I stood as if thunderstruck, and could form no resolution. Where could I fly? Where conceal myself? I saw the terrific monster ready to dart upon me—his eyes glaring, and his throat swelling with fury; my situation was such as cannot be described, shut in on every side, death in its most horrible form appeared certain; I was without any weapon of defence, my fowling-piece being between the serpent and the place where I stood. An unconquerable irresolution still made me hesitate: but seeing the monster open his immense jaws and quicken his pace, and now

only a few paces from me, I sprung about five feet from the rock, and an equal height from the ground, to lay hold of a cleft with my hand. It succeeded! I remained for some moments hanging by my hands over the abyss, before I could find any small projection to place my feet on, and relieve my arms from the weight of my body; at last, however, calling forth all my strength and agility, I obtained a foot-hold, and seizing every projection, and holding fast by every cleft, I reached the edge of the rock, and drew myself to the top. During this anxious struggle for life, I expected every moment to be devoured by the monster; but, fortunately, it was not of that species that crawl upon their tails, with their heads erect, like the naga. Being now beyond the reach of the serpent, I cast my eyes towards it, and observed it greedily eating my rice; it was what the natives call the pambon rajah, or royal serpent; it appeared at least fifty feet in length, and its body was considerably thicker than mine, covered all over with yellow and black scales; it sometimes raised its head, and its general motion was slow and regular. The thought of the great danger I had escaped from made me sensible of the mercy of the Creator, to whom I instantly offered up a grateful thanksgiving for my astonishing deliverance."

The GUARDIAN SNAKE.

ON a journey from Baroche to Dhuboy, Mr. Forbes stopped at Nurrah, a large ruined town, which had been plundered and burnt by the Mahrattas. The principal house had belonged to an opulent man, who emigrated during the war, and died in a distant country. Mr. Forbes was privately informed that under one of the towers there was a secret cell, formed to contain his treasure; the information could not be doubted, because it came from the mason who constructed the cell. Accordingly, the man accompanied him through several spacious courts and apartments, to a dark closet in a tower; the room was about eight feet square, being the whole size of the interior of the tower; and it was some stories above the place where the treasure was said to be deposited. In the floor there was a hole large enough for a slender person to pass through; they enlarged it and sent down two men by a ladder. After descending several feet, they came to an-

other floor, composed in like manner of bricks and channam, and here also was a similar aperture. This also was enlarged, torches were procured, and by their light Mr. Forbes perceived from the upper apartment a dungeon of great depth below, as the mason had described. He desired the men to descend and search for the treasure; but they refused, declaring that wherever money was concealed in Hindoostan, there was always a demon, in the shape of a serpent to guard it. He laughed at their superstition, and repeated his orders in such a manner as to enforce obedience, though his attendants sympathized with the men, and seemed to expect the event with more of fear and awe than of curiosity. The ladder was too short to reach the dungeon; strong ropes therefore were sent for, and more torches. The men reluctantly obeyed, and as they were lowered, the dark sides and the moist floor of the dungeon extinguished the light which they carried in their hands. But they had not been many seconds on the ground before they screamed out that they were enclosed with a large snake. In spite of their screams, Mr. Forbes was incredulous, and declared that the ropes should not be let down to them till he had seen the creature, their cries were dreadful; he however was inflexible; and the upper lights were held steadily, to give him as distinct a view as possible into the dungeon. There he perceived something like billets of wood, or rather, he says, like a ship's cable seen from the deck, coiled up in a dark hole; but no language can express his sensation of astonishment and terror, when he saw a serpent, actually rear his head, over an immense length of body, coiled in volumes on the ground, and working itself into exertion by a sort of sluggish motion. "What I felt," he continues, "on seeing two fellow-creatures exposed by my orders to this fiend, I must leave to the reader's imagination." To his inexpressible joy they were drawn up unhurt, but almost lifeless with fear. Hay was then thrown down upon the lighted torches which they had dropped. When the flames had expired, a large snake was found scorched and dead, but no money. Mr. Forbes supposes that the owner had carried away the treasure with him, but forgot to liberate the snake which he had placed there as its keeper. Whether the snake were venomous or not, he has omitted to mention, or perhaps to observe; if it were not, it would be no defence for the treasure; and if it were, it seems to have become too tor-

pid with manition, confinement, and darkness, to exercise its power of destruction. Where the popular belief prevails that snakes are the guardians of hidden treasure, and where the art of charming serpents is commonly practised, there is no difficulty in supposing that they who conceal a treasure (as is frequently done under the oppressive government of the East) would sometimes place it under such protection.

The CERASTES, or HORNED SNAKE.

THIS curious species is a native of many parts of Africa, and is also frequent in Egypt, Syria, and Arabia. It is about two feet in length, and distinguished by a pair of horns, or curved processes, above its eyes, pointing forwards. These horns are not to be considered as offensive weapons: they increase, however, the natural antipathy so generally felt against the serpent tribe, and give the animal a more than usual appearance of malignity. Its bite is much to be dreaded, since, exclusively of the danger of treading accidentally on this reptile, and thus irritating it unawares, it possesses a propensity to spring suddenly to a considerable distance, and assail without provocation those who happen to approach it. "When," Mr. Bruce observes, "he inclines to surprise any one, the cerastes creeps with his side towards the person, and his head averted, till, judging his distance, he turns round, springs upon him, and fastens on the part next to him."

On the subject of the incantation of serpents, this celebrated traveller remarks as follows: "There is not any doubt of its reality: the scriptures are full of it; and those who have been in Egypt have seen as many different instances as they chose. Some have suspected that it was a trick, and that the animal so handled had been first trained, and then disarmed of the power of hurting; and, fond of the discovery, have rested themselves upon it, without experiment, in the face of all antiquity. But I will not hesitate to aver, that I have seen at Cairo (and this may be seen daily, without trouble or expense), a man who came from above the catacombs, where the pits of the mummy-birds are kept, who has taken a cerastes with his naked hand, from a number of others lying at the bottom of a tub, has put it upon his bare head, covered it with the common red cap he wears, then taken it out, put it on

his breast, and tied it about his neck like a necklace ; after which it has been applied to a hen, and bit it, which has died in a few minutes ; and, to complete the experiment, the man has taken it by the neck, and, beginning at the tail, has eaten it, as one would do a carrot, or a stock of celery, without any seeming repugnance.

“ However lively the snake may have been before, when he is seized by any of these barbarians he seems as if taken with sickness and feebleness, frequently shuts his eyes, and never turns his mouth towards the arm of the person who holds him. On their being questioned how they are exempted from its attack, the gravest and most respectable among the Egyptians reply that they were born so ; while the lower sort talk of enchantments by words and by writing. They all pretend to prepare any person by remedies, that is, by decoctions of herbs and roots. Be this as it may, the records of history attest, that where any country has been remarkably infested by serpents, there the people have been screened by a secret of some kind. Thus it was with the Psylli and Maronides of old.

The BLACK SNAKE.

THE black snake, though very strong, is perfectly harmless. During Professor Kalm's residence at New York, Doctor Colden told him that, in the spring of 1748, he had several workmen at his country seat, and among them one just arrived from Europe, who, of course, knew but little of the qualities of the black snake. The other workmen, having observed a male and female lying together, engaged their new companion to kill one of them. He accordingly approached them with a stick in his hand : this the male observed, and made towards him. The man little expected to find so much courage in such a reptile, and flinging away his stick, ran off as fast as he was able. The snake pursued, overtook him, and twisting several times round his legs, threw him down, and almost frightened the poor fellow out of his senses. He could not rid himself of the animal, without cutting it through the body in two or three places with a knife. The other workmen laughed heartily at the accident, without once offering to assist their companion, considering the whole affair only as a scene of the highest amusement.]

Mr. St. John has described a contest between a black snake and one of another species, to which he was a witness :—" One of my constant walks when I am at leisure," says he, " is in my lowlands, where I have the pleasure of seeing my cattle, horses, and colts. Exuberant grass replenishes all my fields, the best representative of our wealth. In the middle of that tract I have cut a ditch, eight feet wide. On each side of this I carefully sow every year some grains of hemp, the plants from which rise to the height of fifteen feet, so strong and full of limbs as to resemble young trees. These produce natural arbours, rendered often still more compact by the assistance of an annual creeping plant which we call a vine, that never fails to entwine itself among the branches, and always produces a very desirable shade. As I was one day sitting, solitary and pensive, in this primitive arbour, my attention was engaged by a strange sort of rustling noise, at some paces distance. I looked all around, without distinguishing any thing, until I climbed up one of my great hemp stalks; when, to my astonishment, I beheld two snakes of considerable length, the one pursuing the other with great celerity, through a hemp stubble field. The aggressor was of the black kind, six feet long; the fugitive was a water snake, nearly of equal dimensions. They soon met, and in the fury of their first encounter appeared in an instant firmly twisted together; and, whilst their united tails beat the ground, they mutually tried with open jaws to lacerate each other. What a fell aspect did they present. Their heads were compressed to a very small size; their eyes flashed fire: and after this conflict had lasted about five minutes, the second found means to disengage itself from the first, and hurried towards the ditch. Its antagonist instantly assumed a new posture, and half creeping, half erect, with a majestic mien, overtook and attacked the other again, which placed itself in a similar attitude, and prepared to resist. The scene was uncommon and beautiful, for, thus opposed, they fought with their jaws, biting each other with the utmost rage; but notwithstanding this appearance of mutual courage and fury, the water-snake still seemed desirous of retreating towards the ditch, its natural element. This was no sooner perceived by the keen eyed black one; than, twisting its tail twice round a stalk of hemp, and seizing its adversary by the throat, not by means of its jaws, but by twisting its own neck twice

round that of the water-snake, he pulled it back from the ditch. To prevent a defeat, the latter took hold likewise of a stalk on the bank, and, by the acquisition of that point of resistance, became a match for his fierce antagonist. Strange was this to behold: two great snakes strongly adhering to the ground, mutually fastened together by means of the writhings which lashed them to each other, and stretched at their full length, they pulled, but pulled in vain; and, in the moments of greatest exertion, that part of their bodies which was entwined seemed extremely small, while the rest appeared inflated, and now and then convulsed with strong undulations, rapidly following each other. Their eyes appeared on fire, and ready to start out of their heads. At one time the conflict seemed decided; the water-snake bent itself into great folds, and by that operation rendered the other more than commonly outstretched; the next minute the new struggles of the black one gained an unexpected superiority; it acquired two great folds likewise, which necessarily extended the body of its adversary, in proportion as it had contracted its own. These efforts were alternate: victory seemed doubtful, inclining sometimes to one side, sometimes to the other; until at last the stalk, to which the black snake was fastened, suddenly gave way, and in consequence of this accident they both plunged into the ditch. The water did not extinguish their vindictive rage, for by their agitations I could still trace, though I could not distinguish their attacks. They soon re-appeared on the surface, twisted together, as in their first onset; but the black snake seemed to retain its wonted superiority; for its head was exactly fixed above that of the other, which it incessantly pressed down under the water, until its opponent was stifled, and sunk. The victor no sooner perceived its enemy incapable of further resistance, than, abandoning it to the current, it returned to the shore and disappeared."

FISHES.

The CONGER EEL.

WHEN at its full size, the conger eel has sometimes been known to measure more than ten feet in length. It is one of the most powerful enemies with which the fishermen of the British Isles have to contend. A conger, six feet in length, was caught in the Wash at Yarmouth, in April, 1818; but not until after a severe contest with the man who had seized it. The animal is stated to have risen half erect, and to have actually knocked the fisherman down before he could secure it. It weighed only about sixty pounds: but some of the largest exceed even a hundred weight.

The ELECTRICAL EEL.

M. HUMBOLDT, while at Calaboza, made a series of highly satisfactory experiments on the electrical eels. They inhabit the Rio Colorado, the Guarapiche, and several small streams which cross the Chayma missions, as well as the Orinoco, the Meta, and the Marañon: and in the *llanos*, particularly in the environs of Calaboza, the pools of stagnant water, and the streams which fall into the Orinoco, are filled with them. They are at once dreaded and detested by the natives. The muscular part of the flesh is tolerably good eating, but the electric organ, which fills more than two-thirds of the body, is slimy and disagreeable, and is, accordingly, carefully separated from the rest. The presence of the gymnoti is considered as the principal cause of the want of fish in the ponds and pools of the *llanos*. They kill many more than they devour; and all the inhabitants of the waters, lizards, frogs, and tortoises, dread and endeavour to escape from their society. The Indians sometimes take young alligators and gymnoti in the same net, and the latter are never found in that case to display the slightest wound, having evidently disabled the alligator before they could attack them. It was found

necessary to change the direction of a road near Urituca, because these electrical eels were so numerous in one river, that they killed a great number of mules every year as they forded the water.

M. Humboldt repaired to a river where they abound, and where the Indians offered their services in *fishing for them with horses*. Having caught about thirty wild horses and mules, they forced them to enter the pool. "The extraordinary noise caused by the horses' hoofs, makes the fish issue from the mud, and excites them to combat. These yellowish and livid eels, resembling large aquatic serpents, swim on the surface of the water, and crowd under the bellies of the horses and mules. A contest between animals of so different an organization, furnishes a very striking spectacle. The Indians, provided with harpoons and long slender reeds, surround the pool closely; and some climb upon the trees, the branches of which extend horizontally over the surface of the water. By their wild cries and the length of their reeds they prevent the horses from running away, and reaching the bank of the pool, the eels, stunned by the noise, defend themselves by the repeated discharge of their electric batteries. During a long time they seem to prove victorious. Several horses sink beneath the violence of the invisible strokes which they receive from all sides in the organs most essential to life; and, stunned by the force and frequency of the shocks, they disappear under the water. Others panting, with mane erect and haggard eyes, expressing anguish, raise themselves, and endeavour to flee from the storm by which they are overtaken. They are driven back by the Indians into the water; but a small number succeeded in eluding the active vigilance of the fishermen. These regain the shore, stumbling at every step, and stretch themselves on the sand, exhausted with fatigue, and their limbs benumbed by the electrical shocks of the gymnoti.

"In less than five minutes, two horses were drowned. The eel, being five feet long, and pressing itself against the belly of the horses, makes a discharge along the whole extent of its electrical organ. It attacks at once the heart, the intestines, and the *plexus cæliacus* of the abdominal nerves. It is natural, that the effect felt by the horses should be more powerful than that produced upon man by the touch of the same fish at only one of his extremities. The horses are probably not killed, but only stunned. They are drowned from the impossibility of rising amid

the prolonged struggle between the other horses and the eels.

"We have little doubt that the fishing would terminate by killing successively all the animals engaged; but, by degrees, the impetuosity of this unequal combat diminished, and the wearied gymnoti dispersed. They require a long rest and abundant nourishment, to repair what they have lost of galvanic force. The mules and horses appear less frightened; their manes are no longer bristled, and their eyes express less dread. The gymnoti approach timidly the edge of the marsh, where they are taken by means of small harpoons fastened to long cords. When the cords are very dry, the Indians feel no shock in raising the fish into the air. In a few minutes, we had five large eels, the greater part of which were but slightly wounded.

"It would be temerity to expose ourselves to the first shocks of a very large and strongly irritated gymnotus. If by chance you receive a stroke before the fish is wounded, or wearied by a long pursuit, the pain and numbness are so violent, that it is impossible to describe the nature of the feeling they excite. I do not remember having ever received from the discharge of a large Leyden jar, a more dreadful shock than that which I experienced by imprudently placing both my feet on a gymnotus just taken out of the water. I was affected the rest of the day with a violent pain in the knees, and in almost every joint.

"Gymnoti are neither charged conductors, nor batteries, nor electro-motive apparatuses, the shock of which is received every time they are touched with one hand, or when both hands are applied to form a conducting circle between two heterogeneous poles. The electric action of the fish depends entirely upon its will; whether because it does not keep its electric organs always charged, or, by the secretion of some fluid, or by any other means alike mysterious to us, it is capable of directing the action of its organs to an external object. We often tried, both insulated and uninsulated, to touch the fish, without feeling the least shock. When M. Boupland held it by the head, or by the middle of the body, while I held it by the tail, and, standing on the moist ground, did not take each other's hand, one of us received shocks, which the other did not feel. It depends upon the gymnotus to act toward the point where it finds itself the most strongly irritated. The discharge is then made at one point only, and not at the neighbouring points. If two persons

touch the belly of the fish with their fingers, at an inch distance, and press it simultaneously, sometimes one, sometimes the other, will receive the shock."

The SWORD-FISH.

WHEN His Majesty's ship *Leopard*, after her return from the coast of Guinea and the West Indies, was ordered, in 1725, to be cleaned and refitted for the channel service, in stripping off her sheathing, the shipwrights found in her bottom, pointing in a direction from the stern towards the head, part of the sword or snout of one of these fishes. On the outside this was rough, not unlike seal-skin, and the end, where it was broken off, appeared like a coarse kind of ivory. The fish, from the direction in which the sword lay, is supposed to have followed the ship when under sail. The weapon had penetrated through the sheathing, which was an inch thick; and had passed through three inches of plank, and beyond that four inches and a half into the timber. The force requisite to effect this must have been excessively great, especially as no shock was felt by the persons on board. The workmen declared that it would be impossible, with a hammer of a quarter of a hundred weight, to drive an iron pin of the same form and size into the wood, and to the same depth, by less than eight or nine strokes, whilst this had been effected by only one.

The COMMON COD FISH.

LEEUEWENHOCK counted more than nine millions of eggs in the roe of a middling sized cod-fish. The production of so great a number will, surely, in spite of every consumption, secure an inexhaustible supply of grateful provision in all ages.

In Lapland, and in some of the districts of Norway, the cod and the torsk (another species—*gadus callarius*), which are caught in the winter, are carefully piled up, as they are caught, in buildings constructed for the purpose. Here they remain frozen until the following spring, when, the weather becoming more mild, they are removed to another building of similar construction, in which they are prepared for drying. The heads are cut off, the entrails

taken out, and the remainder of the body is hung up in the air. Fish caught in the spring are immediately conveyed to the second house, and are dried in the above manner. Those that are caught during the summer, can only be preserved by the usual methods of curing with salt.

The REMORA, or SUCKING-FISH.

THE Indians of Jamaica and Cuba formerly used the sucking-fish in the catching of others. They kept and fed them regularly for this purpose. The owner, on a calm morning, would carry one of them out to sea, secured to his canoe by a slender but strong line, many fathoms in length; and the moment the creature saw a fish in the water, though at a great distance, it would dart away with the swiftness of an arrow, and soon fasten upon it. The Indian, in the meantime, loosened and let go the line, which was furnished with a buoy that floated on the surface of the ocean, and marked the course the sucking-fish had taken; and he pursued it in his canoe, until he perceived his game to be nearly exhausted. He then, taking up the buoy, gradually drew the line towards the shore; the sucking-fish still adhering with so inflexible a tenacity to his prey, as not easily to be removed.

The BEAKED CHÆTODON, or SHOOTING-FISH.

THIS fish frequents the shores and mouths of rivers in India, and about the Indian Islands. It is of a very pale brown colour, with four or five blackish bands running across the body, which is ovate and compressed, and somewhat more than six inches in length. Its snout is lengthened and cylindrical. It feeds principally on flies and other small-winged insects. When it sees a fly at a distance on any of the plants in the shallow water, it approaches very slowly, coming as much as possible perpendicularly under the object. Then putting its body in an oblique direction, with the mouth and eyes near the surface, it remains for a moment immoveable. Having fixed its eyes directly on the insect, it shoots at it a drop of water from its tubular snout, but without showing its mouth above the surface, from whence only the drop seems to rise. This is done with so much dexterity, that

though at the distance of five or six feet, it seldom fails to bring the fly into the water.

The STICKLEBACK.

MR. ARDERON of Norwich put a stickleback into a glass jar of water, with sand at the bottom, for the purpose of trying some experiments on it, as well as for the purpose of ascertaining its manners, as far as possible, in a confined state. For a few days it refused to eat; but, by frequently giving it fresh water, and by coming often to it, it began to eat the small worms that were now and then thrown into the jar. Soon afterwards it became sufficiently familiar to take them from the hand; and at last it was so bold, as, when satiated, or when it did not like what was offered, to set up its prickles, and strike with its utmost strength at the fingers. It would suffer no other fish to live in the same jar, but invariably attacked whatever were put in, though ten times its own size. One day, by way of diversion, a small fish was put to it. The prickleback immediately assaulted and put it to flight, tearing off part of its tail in the conflict; and had they not been then separated, he would undoubtedly have killed it. The voracity of the stickleback is very great. The one which Mr. Arderon kept in a glass devoured in five hours no less than seventy-four young dace, each about an inch and a half long, and of the thickness of a horse-hair.

The SALMON.

ONE of the most extraordinary faculties of the salmon is its power of making enormous leaps, over cataracts and other obstacles of very great height. On the river Liffey, in Ireland, there is a cataract about nineteen feet high: here, in the salmon season, many of the inhabitants amuse themselves by watching the fish leap up the torrent. They frequently fall many times before they are able to surmount; and they are caught in their fall by baskets, made of twigs, placed at the edge of the stream. At the falls of Kilmorack, in Scotland, the country people lay branches of trees on the edges of the rocks, and often catch them when they miss their leap. The late Lord Lovat, who often visited these falls, taking the hint from the circum-

stance, ordered a kettle-full of water to be placed on a fire alongside one of these falls; and many minutes had not elapsed, ere a large salmon made a false leap and fell into it.

The TROUT.

It may not be generally known to the lovers of Natural History, that the trout species will prey on the lizard. An instance of this was discovered in a trout, caught by a gentleman in the lake of Buttermere. The fish weighed a pound and a half; and when opened, was found to contain a full grown lizard. Those who are fond of the rural diversion of angling may profit from the hint, by trying the experiment of baiting for trout with animals of the lizard species.

The PIKE.

IN December, 1765, a pike was caught in the river Ouse, which weighed upwards of twenty-eight pounds, and was sold for a guinea. When it was opened, a watch with a black ribbond and two seals were found in its body. These, it was afterwards discovered, had belonged to a gentleman's servant, who had been drowned in the river about a month before.

Walton tells us, that his friend Mr. Seagrave, who kept tame otters, had observed a pike, in extreme hunger, fight with one of his otters for a carp that the otter had caught, and was then bringing out of the water.

The COMMON MULLET.

THE general mode of catching these fish is by seive nets. In some parts of the Continent the fishermen endeavour, by making violent noises, to drive them into their nets; but the whole shoal often succeed in escaping, even when surrounded by the net; for, if one of them spring over it, the rest, like sheep, are sure to follow their leader. This circumstance was known to the ancients:—

“ The mullet, when encircling seines enclose,
The fatal threads and treach'rous bosom knows.
Instant he rallies all his vigorous powers,
And faithful aid of every nerve implores;
O'er battlements of cork up-darted flies,
And finds from air th' escape that sea denies.”

OPPIAN.

The TENCH.

IN November, 1801, a tench was taken at Thornville Royal, in Yorkshire, of such enormous size, and so singular in its shape, as to be accounted rather a *lusus naturæ*, than a regular production. A piece of water had been ordered to be cleared out. After the pond was supposed to be quite cleared of fish, an animal, which was conjectured to be an otter, was observed to lie under some roots. The place was surrounded, and, on making an opening, a tench of most singular form was found, having literally taken the shape of the hole in which he had for many years been confined. His length was two feet nine inches, his circumference two feet three inches, and his weight nearly twelve pounds. The colour was also singular, his belly being tinged with vermilion. After being carefully examined by many gentlemen, it was put into a pond, and is perhaps yet alive.

The WHITE SHARK.

“SHARKS,” says Mr. Pennant, “are the dread of sailors in all hot climates, where they constantly attend the ships, in expectation of what may drop overboard: a man who has that misfortune perishes without redemption: they have been seen to dart at him like gudgeons to a worm.” They are said to attack negroes in preference to Europeans; and are observed, in particular, to attend with unremitting assiduity the passage of the slave-ships from the coast of Africa to the West Indian islands; and, as Cedepe very happily and justly observes, may be considered as forming a proper escort to the cruel conductors of those most accursed vessels.

There are usually found a great many *tæniæ*, or tape-worms, which not only infest the cavities of the intestines, but even penetrate into and lodge themselves between their interior coats: these animals, therefore, by their vellication and motions, must be supposed to aggravate the natural voracity of the shark, and to impel it to engorge a large quantity of food, in order to allay the sensations excited by these internal enemies.

This voracious animal sometimes grows to a prodigious size: we are informed by Gillius, that a shark was seen of the weight of four thousand pounds, and that in the

belly of one was found an entire human body; and Muller asserts, that in a shark taken at the isle of St. Margaret was found a horse, which had probably been thrown overboard from some ship. The size of the fossil teeth of this species, so often found in the isle of Malta, and elsewhere, affords a convincing proof of the enormous specimens which have once existed. In the British Museum are teeth of this kind, measuring at least four inches and a half from the point to the base, and six inches from the point to the corner: the animal, therefore, to which such teeth belonged, must have been equal to the largest of the cetacea in volume, and we may well admit the probability of a human body being swallowed by such a fish, not only entire, but without a wound; and on this supposition it is that the shark has been imagined by some to have been the fish ordained for the temporary confinement of the prophet Jonah.

An intelligent gentleman, from the West Indies, related the following singular particulars:—"To the southward of Bermuda, and in $27^{\circ} 30'$ north latitude, the crew of the vessel in which he came passenger, killed a very large shark. On opening him, the instrument struck upon an impenetrable hard substance in his stomach, which, upon digging out, they found to be a six-pound cannon ball! They reasonably accounted for its being in the stomach of the shark, by supposing it to have been attached to a dead body in order to make it sink, and that the voracious animal, in swallowing the body had swallowed the shot also. In the same vessel, as they approached Europe, bearing for the English Channel, and a considerable way to the westward of Sicily, the ship, as is usual, hove to sound, in order to ascertain their distance from land, when the lead struck the ground or bank in ninety fathoms water, and brought up attached to it a sixpence of George III. The coin was quite bright, but one side worn completely smooth, which, it is supposed, proceeded from its having been washed backwards and forwards, from tides or counter-currents."

Some fishermen fishing in the river Thames, near Poplar, December 1st, 1787, with much difficulty drew into their boat a shark, yet alive, but apparently very sickly; it was taken on shore, and being opened, in its belly were found a silver watch, a metal chain, and a cornelian seal, together with several pieces of gold lace, supposed to have belonged to some young gentleman, who was unfortunate

enough to have fallen overboard ; that the body and other parts had either been digested, or otherwise voided ; but the watch and gold lace not being able to pass through it, the fish had thereby become sickly, and would in all probability very soon have died. The watch had the name of " Henry Watson, London, No. 1269," and the works were very much impaired. On these circumstances being made public, Mr. Henry Watson, watchmaker, in Shoreditch, recollected, that about two years ago, he sold the watch to Mr. Ephraim Thompson, of Whitechapel, as a present to his son, on going out on his first voyage, on board the ship *Polly*, Captain Vane, bound to Coast and Bay, about three leagues off Falmouth : by a sudden heel of the vessel, during a squall, Master Thompson fell overboard, and was no more seen. The news of his being drowned soon after came to the knowledge of his friends, who little thought of hearing any thing more concerning him. Mr. Thompson is said to have purchased the shark, to preserve it as a memorial of so singular an event. It is the largest ever remembered to have been taken up in the Thames ; being, from the tip of the snout to the extremity of the tail nine feet three inches ; from the shoulder to the extremity of the body, six feet one inch ; round the body, in the thickest part, six feet nine inches ; the width of the jaw, when extended, seventeen inches. It had five rows of teeth, consequently was five years old, having an additional row every year, till it arrives at full growth. Swimmers very often perish by them : sometimes they lose an arm or a leg, and sometimes are bit quite asunder, serving but for two morsels for this ravenous animal : a melancholy tale of this kind is recited in a West Indian ballad, preserved in Dr. Percy's *Reliques of Ancient English Poetry*.

" Sir Brook Watson was of a very respectable family in the north of England, but having lost both his parents early in life was brought up by an aunt, and before the age of fourteen, manifested a strong predilection for the sea. When bathing in the Havannah he was pursued by a shark, which seized him by the right leg, from which it tore the flesh and completely separated the foot. The voracious animal made a second attack, and was attempting a third, when one of the boat's crew, seeing the perilous situation of the young mariner, struck it on the head with a boat-hook, and thus fortunately enabled the wounded youth to escape from its deadly fury."

In the latter part of Queen Anne's reign, the sailors on board the York Merchant, a collier, having disembarked the last part of their lading, at Barbadoes, those who had been employed in that dirty work ventured into the sea to wash themselves, but had not been long there before a person on board observed a large shark making towards them, and gave them notice of their danger; upon which they swam back, and all but one reached the boat. The shark overtook him almost within reach of the oars, and gripping him by the small of the back, his devouring jaws soon cut him asunder, and as soon as he swallowed the lower part of his body, the remaining part was taken up, and carried on board, where his comrades were. The friendship between one of them and the deceased had long been distinguished by a reciprocal discharge of all such endearing offices as implied an union and sympathy of souls. On his seeing the severed trunk of his friend, he was filled with horror and emotion, too great to be expressed by words. During this affecting scene, the insatiable shark was observed traversing the bloody surface, searching after the remainder of his prey. The rest of the crew thought themselves happy in being on board; he alone was unhappy, at his not being within reach of the destroyer. Fired at the sight, and vowing that he would make the devourer disgorge, or be swallowed himself, he plunged into the deep, armed with a sharp-pointed knife. The shark no sooner saw him, but he made furiously towards him; both equally eager, the one for his prey, the other for revenge. The moment the shark opened his rapacious jaws, his adversary, dexterously diving and grasping him with his left hand, somewhat below the upper fins, successfully employed his knife in his right hand, giving him repeated stabs in the belly. The enraged shark, after many unavailing efforts, finding himself overmatched in his own element, endeavoured to disengage himself, sometimes plunging to the bottom, then mad with pain, rearing his uncouth form above the foaming waves, stained with his own streaming blood. Being much weakened by the loss of blood, he made towards the shore, and with him his conqueror, who, flushed with an assurance of victory, pushed his foe with redoubled ardour, and by the help of an ebbing tide dragged him on shore, ripped up his bowels, and united and buried the severed body of his friend in one grave.

The TORPEDO.

THE surprising property of the torpedo in giving a violent shock to the person who takes it in his hands, or who treads upon it, was long an object of wonder. For some time it was in general reckoned to be entirely fabulous: but at last the matter of fact being ascertained beyond a doubt, philosophers endeavoured to find out a cause. M. Reaumur resolved it into the action of a vast number of minute muscles, which by their accumulated force gave a sudden and violent stroke to the person who touched it. But solutions of this kind were quite unsatisfactory, because the stroke was found to be communicated through water, iron, wood, &c. When the phenomena of electricity began to be better known, it was then suspected that the shock of the torpedo was occasioned by a certain action of the electric fluid; but as not the least spark of fire or noise could ever be perceived, this too seemed insufficient. Mr. Walsh, however, with indefatigable pains, has not only explained this surprising phenomenon on the known principles of electricity, but given a demonstration of his being in the right, by constructing an artificial torpedo, by which a shock, resembling that of the natural one, can be given. The fish, as is reasonable to imagine, seems to have this electric property in its own power, and appears sensible of his giving the shock, which is accompanied by a kind of winking of his eyes.

The SKATE.

DR. MONRO has remarked, that in the gills of a large skate, there are upwards of 144,000 folds; and that the whole extent of this membrane, whose surface is nearly equal to that of the whole human body, may be seen, by a microscope, to be covered with a net-work of vessels, that are not only extremely minute, but exquisitely beautiful.

INDEX.

	Page		Page
ALLIGATOR	285	Dog, Esquimaux.....	90
Apes in general	3	Duck.....	270
Ape, Barbary	28	Eel, Conger.....	311
— Pigmy.....	29	— Electrical	ib.
Arnee	183	Elephant	51
Ass	192	Elk	172
— Wild	ib.	Falcon, Chaunting	204
Auk, Perroquet	270	— Secretary	202
Baboon	30	Fitchet	143
— Dog-faced	32	Fox	107
Badger	154	Frog	279
Bat	44	— Bull	283
Bear, American	151	— Green Tree	ib.
— Common	147	Gannet.....	272
— Polar.....	152	Goat	180
Beaver	159	Goldfinch.....	231
Birds of Passage	244, &c.	Goose	266
Bison.....	184	— Canada	268
Boa	298	— Snow.....	266
Booby	272	— Solan.....	272
Buffalo	184	Grampus	198
— Cape	187	Grosbeak, Bengal	225
Cachalot	197	— Sociable	ib.
Camel	172	Guacharo	206
Campanero	229	Guardian Snake	305
Canary Bird	232	Hare, Calling	171
Cat	136	— Common	170
Cayman	287	— Ogotona	171
Cerastes	307	Hedgehog	157
Chætodon	315	Hog	194
Chameleon	292	— Ethiopian	196
Chamois	177	Hooper	265
Chimpanzee.....	18	Horse	188
Chough.....	212	Humming Bird	227
Civet.....	142	Hyæna.....	98
Cock	258	— Spotted	102
Cod-fish	314	Jackal	106
Condor.....	199	Jaguar	136
Conger	311	Ichneumon	140
Corvorant.....	273	Kangaroo.....	155
Cotinga.....	228	Lammer Geyer	203
Crane	263	Lapwing....	264
Creepers	224	Lemur	42
Crocodile	291	Leopard	134
Cuckoo	213	— Hunting	135
— Bee.....	223	Lion	109
Deer, Moose	172		
Diver, Chinese	274		
Dog	76		

	Page		Page
Lizard	292	Rhinoceros	48
Loris	41	Rook	210
Macanuco	43	Sable	143
Mandrill	31	Salmon	316
Manati	69	Sea Fowling	274
Martin (quadruped)	142	Seal	72
—— (bird)	248	Secretary	202
Mole	155	Serpent, Ceylon	302
Monkey, Chinese	34	Shark	318
—— Egret	ib.	Sheep	181
—— Fearful	38	Shrike	205
—— Four-fingered	39	Skate	322
—— Howling	36	Skunk	141
—— Squirrel	38	Sloth	47
—— Striated	35	Snake, Black	308
Moroc	223	—— Guardian	305
Morse	69	—— Horned	307
Mouse, Domestic	165	Sparrow	230
—— Field	167	Spectre Bat	46
—— Harvest	ib.	Squirrel, Common	168
Mullet	317	—— Grey	169
Nightingale	232	—— Striped	170
Nyl-ghau	179	Stickleback	316
Opossum	154	Stork	262
Oran Otan	18	Sucking Fish	315
Ostrich	262	Swallow	243
Otter	146	—— Chimney	247
Ounce	135	—— Indian	249
Ouzel, Water	224	Swan, Tame	265
Owl, Horned	204	—— Whistling	ib.
—— White	205	Sword Fish	314
Ox	181	Tailor-bird	241
Panther	134	Tench	318
Parrot, Common	209	Terrapin	277
—— Guinea	208	Thaleb	106
Partridge	261	Tiger	129
Pelican	271	Tiger-wolf	102
Pigeon	250	Titmouse	242
Pike	317	Toad	284
Polecat	143	Torpedo	322
Pompadour	229	Tortoise, Land	277
Porcupine	158	Trout	317
Puma	135	Turkey	252
Quail	261	Turtle	278
Raccoon	153	Vampyre Bat	45
Rat, Common	160	Weasel	144
—— Economic	168	—— Honey	141
Ratel	141	—— Striated	ib.
Rattle Snake	294	Whale	196
Raven	210	Whidah Bird	226
Red-breast	238	Willow-wren	241
Rein-deer	173	Wolf	96
Remora	315	Wolverine	153
		Woodcock	264

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